



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor
Richard H. Opper, Director

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

March 14, 2011

Mr. Rick Larson
126 W Granite
Butte, MT 59701

RE: ANNUAL FINANCIAL ASSURANCE UPDATE RECEIVED
Old Butte-Silver Bow Landfill (Lic. No. 20)

Dear Mr. Larson:

The FY2010 landfill financial assurance (FA) update to closure, post closure, or corrective action FA cost estimates for the subject facility, as appropriate to ongoing and approved baseline conditions and the published annual inflation multiplier, was received by the Department of Environmental Quality (Department). The FA update for FY2010 was due on April 1, 2010.

The Department has placed the annually adjusted cost estimates in the FA file record for the Old Butte-Silver Bow Landfill. The operating record for each FA mechanism selected must be immediately updated with the proper documents validating that the total amount of financial assurance available has been adjusted accordingly. Any chosen FA mechanism must perform in a manner to ensure that criteria of ARM 17.50.540(5)(h) are continuously satisfied pursuant to ARM 17.50.540(2) — (4).

The Department will respond separately to review and approve any requests for other adjustments to the FA cost estimates due to baseline changes in the facility FA cost structure, as accompanied by an engineer's justification and inspection report or design. We will respond likewise to proposals for (i) changes to any Department FA mechanism form, (ii) a change in the FA mechanism selected, or (iii) a change in the FA mechanism provider.

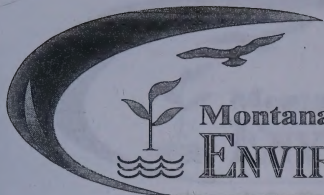
If you have any questions or need additional information, please contact me at the Permitting and Compliance Division: Voice (406) 444-4725 or e-mail tstepp@mt.gov.

Sincerely,

Tim Stepp
Solid Waste Program
Waste & Underground Tank Management Bureau

File: Lic# 20/.../Old Butte-Silver Bow Landfill/FA
Path: G:\WUT\SWS\FA\GEN RESPONSE\MergeFAreceiptLetter2010.doc





Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor
Richard H. Opper, Director

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

January 28, 2011

Mr. Rick Larson
126 W Granite
Butte, MT 59701

**RE: REQUIRED ANNUAL FINANCIAL ASSURANCE UPDATE
Old Butte-Silver Bow Landfill (Lic. No. 20)**

Dear Mr. Larson:

The FY2011 financial assurance (FA) update must be submitted with the annual landfill license renewal application and annual report due on April 1, 2011. The annual inflation multiplier is derived from the implicit price deflator (IPD) for gross domestic product (GDP) based on the latest final year-end figure available in time for the submission deadline. The deflator is published by the Bureau of Economic Analysis, U.S. Department of Commerce, and may be found at the webpage <http://www.bea.gov/National/nipaweb/Index.asp>.

Please use 1.009 (0.9%) as the inflation multiplier for the required FY2011 annual adjustments to your FY2010 closure, post closure, or corrective action FA cost estimates, as appropriate to the facility conditions. The total amount of financial assurance must be adjusted accordingly for each mechanism selected to provide adequate landfill FA as required [ARM 17.50.540].

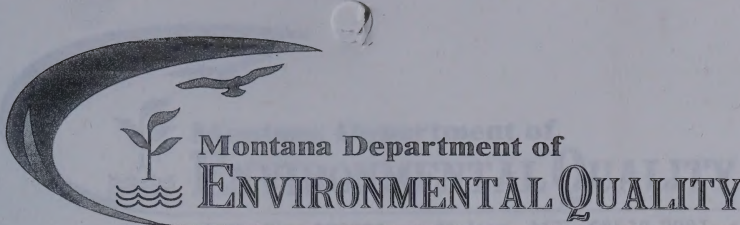
Any requests for other adjustments to the FA cost estimates due to changes in the facility FA cost structure must be accompanied by a licensed engineer's inspection report and justification. The justification for active facilities must additionally tabulate the following schedules:

- facility design capacity, and total and remaining life of the facility;
- active landfill unit acreages, total and remaining unit capacities, and total and remaining unit life; and
- closed landfill unit acreages and capacities, annual leachate volume, and methane production per unit where appropriate.

If you have any questions or need additional information, please contact me at the Permitting and Compliance Division: Voice (406) 444-4725 or e-mail tstepp@mt.gov.

Sincerely,

Tim Stepp
Solid Waste Program
Waste & Underground Tank Management Bureau



Brian Schweitzer, Governor
Richard H. Opper, Director

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

January 27, 2010

Mr. Gary Keeler
126 W Granite
Butte, MT 59701

**RE: REQUIRED ANNUAL FINANCIAL ASSURANCE UPDATE
Old Butte-Silver Bow Landfill (Lic. No. 20)**

Dear Mr. Keeler:

The FY2010 financial assurance (FA) update must be submitted with the annual landfill license renewal application and annual report due on April 1, 2010. The annual inflation multiplier is derived from the implicit price deflator (IPD) for gross domestic product (GDP) based on the latest final year-end figure available in time for the submission deadline. The deflator is published by the Bureau of Economic Analysis, U.S. Department of Commerce, and may be found at the webpage <http://www.bea.gov/National/nipaweb/Index.asp>.

Please use 1.020 as the inflation multiplier for the required FY2010 annual adjustments to your FY2009 closure, post closure, or corrective action FA cost estimates, as appropriate to the facility conditions. The total amount of financial assurance must be adjusted accordingly for each mechanism selected to provide adequate landfill FA as required [ARM 17.50.540].

Any requests for other adjustments to the FA cost estimates due to changes in the facility FA cost structure must be accompanied by a licensed engineer's inspection report and justification. The justification for active facilities must additionally tabulate the following schedules:

- facility design capacity, and total and remaining life of the facility;
- active landfill unit acreages, total and remaining unit capacities, and total and remaining unit life; and
- closed landfill unit acreages and capacities, annual leachate volume, and methane production per unit where appropriate.

If you have any questions or need additional information, please contact me at the Permitting and Compliance Division: Voice (406) 444-4725 or e-mail tstepp@mt.gov.

Sincerely,

Tim Stepp
Solid Waste Program
Waste & Underground Tank Management Bureau

ENVIRONMENTAL QUALITY

John H. Gorman, Director
 Environmental Quality Division
 1000 North 1st Street, Suite 1000
 Anchorage, Alaska 99501-3001

Phone: (907) 263-1000 • Fax: (907) 263-1001 • E-mail: john.gorman@alaska.gov

January 27, 2010

Mr. Gary Koster
 138 W. Green
 Boise, ID 83701

RE: REQUIRED ANNUAL FINANCIAL ASSURANCE UPDATE
 One Union Street, Box 1, Anchorage, Alaska 99501

Dear Mr. Koster:

The FY 2010 financial assurance (FA) update must be submitted with the annual landfill license renewal application and must be submitted on or April 1, 2010. The annual inflation multiplier is based on the highest price deflator (HPD) for the gross domestic product (GDP) based on the latest data available from the Bureau of Economic Analysis, U.S. Department of Commerce. The deflator is provided by the Bureau of Economic Analysis, U.S. Department of Commerce, and may be found at the website: <http://www.bea.gov/deflator/>.

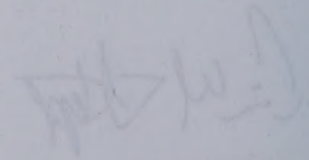
Please use 1.032 as the inflation multiplier for the required FY 2010 annual adjustments to your FA. The annual inflation multiplier for the required FY 2010 annual adjustments to your FA is based on the highest price deflator (HPD) for the gross domestic product (GDP) based on the latest data available from the Bureau of Economic Analysis, U.S. Department of Commerce. The deflator is provided by the Bureau of Economic Analysis, U.S. Department of Commerce, and may be found at the website: <http://www.bea.gov/deflator/>.

Any updates for other adjustments to the FA must be submitted to the Department of Environmental Quality (DEQ) by a licensed engineer's signature and seal. The updates must be accompanied by a licensed engineer's signature and seal. The updates must be submitted to the Department of Environmental Quality (DEQ) by a licensed engineer's signature and seal.

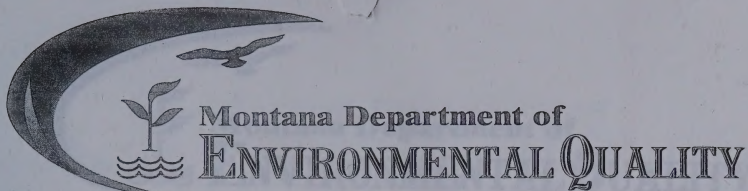
- landfill design capacity, and total and remaining volume
- active landfill cell capacity, and total and remaining volume
- closed landfill cell capacity, and total and remaining volume
- per cell volume appropriate

If you have any questions or need additional information, please contact me at the following and I will be happy to assist you: (907) 263-1000 or e-mail john.gorman@alaska.gov.

Sincerely,



John H. Gorman
 Solid Waste Program
 Waste & Environmental Management Bureau



Brian Schweitzer, Governor
Richard H. Opper, Director

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

January 27, 2010

Mr. Gary Keeler
126 W Granite
Butte, MT 59701

RE: ANNUAL FINANCIAL ASSURANCE UPDATE RECEIVED
Old Butte-Silver Bow Landfill (Lic. No. 20)

Dear Mr. Keeler:

The FY2009 landfill financial assurance (FA) update to closure, post closure, or corrective action FA cost estimates for the subject facility, as appropriate to ongoing and approved baseline conditions and the published annual inflation multiplier, was received by the Department. The annual FA update must be submitted with the annual landfill license renewal application and annual report that was due on April 1, 2009.

The Department has placed the annually adjusted cost estimates in the FA file record for the Old Butte-Silver Bow Landfill. The operating record for each FA mechanism selected must be immediately updated with the proper documents validating that the total amount of financial assurance available has been adjusted accordingly. Any chosen FA mechanism must perform in a manner to ensure that criteria of ARM 17.50.540(5)(h) are continuously satisfied pursuant to ARM 17.50.540(2) — (4).

The Department will respond separately to review and approve any requests for other adjustments to the FA cost estimates due to baseline changes in the facility FA cost structure, as accompanied by an engineer's inspection report and justification. We will respond likewise to proposals for (i) changes to any Department FA mechanism form, (ii) a change in the FA mechanism selected, or (iii) a change in the FA mechanism provider.

If you have any questions or need additional information, please contact me at the Permitting and Compliance Division: Voice (406) 444-4725 or e-mail tstepp@mt.gov.

Sincerely,

Tim Stepp
Solid Waste Program
Waste & Underground Tank Management Bureau

File: Lic# 20/...Old Butte-Silver Bow Landfill/FA
Path: G:\WUTSWS\FA\GEN RESPONSE\MergeFAreceiptLetter2009.doc

DEPARTMENT OF ENVIRONMENTAL QUALITY

January 27, 2010

Mr. Gary Kessler
125 W. Granite
Bozeman, MT 59701

RE: ANNUAL FINANCIAL ASSURANCE UPDATE RECEIVED
Old Page 24-25 (New Page 24) (LSC 1001 20)

Dear Mr. Kessler:

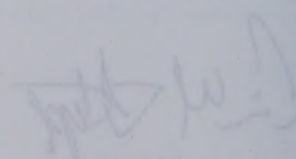
The FY2009 landfill financial assurance (FA) report to closure, post closure, or corrective action FA cost estimates for the subject facility, as appropriate to ongoing and approved landfill conditions and the published annual information monitoring, was received by the Department. The annual FA report must be submitted with the annual landfill financial assurance application and annual report that was due on April 1, 2009.

The Department has placed the annually adjusted cost estimates in the FA file record for the Old Bozeman-Silver Bow Landfill. The existing record for each FA mechanism selected must be immediately agreed with the project documents validating the total amount of financial assurance available has been adjusted accordingly. Any chosen FA mechanism must perform in a manner to ensure that criteria of ARM 17.20.240(2)(i) are continuously satisfied pursuant to ARM 17.20.240(2) - (4).

The Department will respond separately to review and approve any requests for other adjustments to the FA cost estimates due to business changes in the facility FA cost estimates, as recommended by an engineer's inspection report and justification. We will respond likewise to proposals for (i) changes to any Department FA mechanism, (ii) a change in the FA mechanism selected, or (iii) a change in the FA mechanism provided.

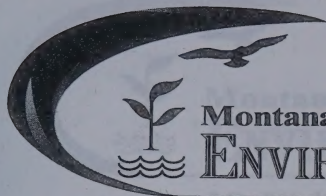
If you have any questions or need additional information, please contact me at the following and Compliance Division: (406) 444-4722 or e-mail: compliance@deq.mt.gov

Sincerely,



Tim Sapp
Solid Waste Program
Waste & Land Management Bureau

For: LISA M. O'BRIEN-SILVER BOW LANDFILL
FOR: G. WUTTSWORTH ACTION RESPONSE/ANNUAL REPORTING FOR



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

January 31, 2009

Mr. Gary Keeler
126 W Granite
Butte, MT 59701

**RE: REQUIRED ANNUAL FINANCIAL ASSURANCE UPDATE
Old Butte-Silver Bow Landfill (Lic. No. 20)**

Dear Mr. Keeler:

The FY2009 financial assurance (FA) update must be submitted with the annual landfill license renewal application and annual report due on April 1, 2009. The annual inflation multiplier is derived from the implicit price deflator (IPD) for gross domestic product (GDP) based on the latest final year-end figure available in time for the submission deadline. The deflator is published by the Bureau of Economic Analysis, U.S. Department of Commerce, and may be found at the webpage <http://www.bea.gov/National/nipaweb/Index.asp>.

Please use 1.027 as the inflation multiplier for the required FY2009 annual adjustments to your FY2008 closure, post closure, or corrective action FA cost estimates, as appropriate to the facility conditions. The total amount of financial assurance must be adjusted accordingly for each mechanism selected to provide adequate landfill FA as required [ARM 17.50.540].

Any requests for other adjustments to the FA cost estimates due to changes in the facility FA cost structure must be accompanied by an engineer's inspection report and justification. The justification for active facilities must additionally tabulate the following schedules:

- facility design capacity, and total and remaining life of the facility;
- active landfill unit acreages, total and remaining unit capacities, and total and remaining unit life; and
- closed landfill unit acreages and capacities, and annual leachate and methane production volumes per unit.

If you have any questions or need additional information, please contact me at the Permitting and Compliance Division: Voice (406) 444-4725 or e-mail tstepp@mt.gov.

Sincerely,

Tim Stepp
Solid Waste Program
Waste & Underground Tank Management Bureau



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

January 31, 2008

Mr. Gary Keeler
126 W Granite
Butte, MT 59701

**RE: REQUIRED ANNUAL FINANCIAL ASSURANCE UPDATE
Old Butte-Silver Bow Landfill (Lic. No. 20)**

Dear Mr. Keeler:

The FY2008 financial assurance (FA) update must be submitted with the annual landfill license renewal application and annual report due on April 1, 2008. The annual inflation multiplier is derived from the implicit price deflator (IPD) for gross domestic product (GDP) based on the latest final year-end figure available in time for the submission deadline. The deflator is published by the Bureau of Economic Analysis, U.S. Department of Commerce, and may be found at the webpage <http://www.bea.gov/national/index.htm>.

Please use 1.032 as the inflation multiplier for the required FY2008 annual adjustments to your closure, post closure, or corrective action FA cost estimates. The total amount of financial assurance must be adjusted accordingly for the FA mechanism selected.

Any requests for other adjustments to the FA cost estimates due to changes in the facility FA cost structure must be accompanied by an engineer's inspection report and justification. The justification must additionally tabulate the following schedules:

- facility design capacity and total years remaining for site post closure care;
- closed landfill unit acreages and capacities, years remaining per unit for post closure care, and annual leachate and methane production volumes per unit.

If you have any questions or need additional information, please contact me at the Permitting and Compliance Division: Voice (406) 444-4725 or e-mail tstepp@mt.gov.

Sincerely,

Tim Stepp
Solid Waste Program
Waste & Underground Tank Management Bureau



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

February 6, 2006

Mr. Gary Keeler
Old Butte-Silver Bow Landfill
126 W Granite
Butte, Mt. 59701

Dear Mr. Keeler:

Enclosed is a CD containing the required language for standby trusts and pay-in trusts. Please make sure your trust agreement with the trustee has the exact language from the CD. No other language is acceptable to the Department.

If the language in your current trust agreement does not match the language on the CD please contact your trustee and have the language adjusted. If you are having the language adjusted, please provide the Department with a time by which the adjusted and signed trust agreement will be sent to the Department for approval.

If you have any questions or need additional information, please contact me at the Permitting and Compliance Division, Waste and Underground Tank Management Bureau, Solid Waste Section, (406) 444-9879 or e-mail mdasilva@mt.gov.

Sincerely,

Mike DaSilva
Solid Waste Section

G:\WUTSWS\FA\mechanismLanguage\TrustLanguageCD_Ltr2-06.doc



Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

February 6, 2006

Mr. Gary Keeler
Old Butte-Silver Bow Landfill
126 W Granite
Butte, Mt. 59701

Dear Mr. Keeler:

The 2006 financial assurance (FA) updates are due April 1, 2006. They are to be submitted with the annual landfill license renewal. The annual multiplier is derived from the implicit price deflator for gross domestic product (GDP) for the latest year-end figure available (2004) in time for your April 1 submission. The deflator is published by the Bureau of Economic Analysis of the Statistics Administration at the U.S. Department of Commerce. It may be found at:
<http://www.economicindicators.gov/>.

From Table 4.--Price Indexes for Gross Domestic Product and Related Measures: Percent Change From Preceding Period, the annual change in the implicit price deflator, GDP for 2004 is 2.6%.

The multiplier for 2006 is 1.026

Please use this multiplier in updating the amounts needed for your closure, post closure and corrective action FA cost estimate updates.

Any requests for adjustments to the cost estimate and required FA due to changes in operations or facility life must be accompanied by an engineer's inspection report on all systems. This report must include schedules that summarize remaining unit capacities, open-area acreages, and anticipated construction along with the engineer's cost estimate update.

If you have any questions or need additional information, please contact me at the Permitting and Compliance Division, Waste and Underground Tank Management Bureau, Solid Waste Section, (406) 444-9879 or e-mail mdasilva@mt.gov.

Sincerely,

Mike DaSilva
Solid Waste Section

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Private Client Services

RECEIVED

NOV 18 2003

MONTANA
DEPT. OF ENVIRONMENTAL QUALITY
COMMUNITY SERVICES BUREAU

November 14, 2003

Dear Valued Client:

Your relationship with Wells Fargo is important to us, and this is the reason we are writing to you today. We want to be sure you are aware that Wells Fargo is combining its community bank charters into one community bank charter, Wells Fargo Bank, N.A. You may already have received information about these plans with your bank statement, including a state-by-state timeline for combining our banking affiliates.

Uniting our many state and geographic community bank charters will enable us to simplify our procedures, increase our efficiency and find new ways to help you succeed financially. The corporate headquarters of Wells Fargo & Company will remain in San Francisco, while Wells Fargo employment and operations will remain in the same states as today. Our consolidated bank charter will have its legal main office in Sioux Falls, South Dakota.

The move to a single community bank charter will not change the features of your accounts or the way you do business with us. If you have a trust account or a trust IRA with us, your trustee will become Wells Fargo Bank, N.A. on November 21, 2003. Most importantly, there will be no change in the level of service you receive from Private Client Services and *no action or response on your part is required.* You will continue to work with the same dedicated people you know and trust, conduct business at the same convenient locations and enjoy the same personal attention and customized services as before. And, as always, decisions that affect our clients, communities and team members will continue to be made as they are today.

Your business is important to us, and we look forward to continuing to meet your needs as one community bank in the years ahead. If you have questions, simply call your Relationship Manager. We are here to assist you.

Sincerely,

David Coffaro
Managing Director, Investment Management and Trust

Investment Management and Trust:
1-877-404-7075

OCT 17 2003

MONTANA

DEPT. OF ENVIRONMENTAL QUALITY
COMMUNITY SERVICES BUREAU

October, 2003

**NOTIFICATION REGARDING WELLS FARGO FUNDS IN YOUR TRUST/AGENCY
ACCOUNT(S)**

We have enclosed the most current Wells Fargo Money Market Funds Service Class Shares Prospectus for the applicable proprietary mutual fund(s) held in the account(s) for which you receive statements.

The Wells Fargo Money Market Funds Service Class Shares Prospectus provides details about the Fund's investment management and advisory fees, as well as other fees for other services, including those paid to Wells Fargo or its affiliates, for each Wells Fargo Money Market Service Class Shares Fund. The fees payable to Wells Fargo or an affiliate are stated in the "Summary of Expenses" section and the "Organization and Management of the Funds" section of the Prospectus and in the "Management" section of the Statement of Additional Information. The Statement of Additional Information which the Prospectus incorporates by reference, is available upon request, by calling the Wells Fargo Funds at 1-800-222-8222.

In addition, please note that on July 25, 2003, several Wells Fargo money market funds reorganized into share classes of other Wells Fargo money market funds that have identical investment objectives, strategies and fund management teams. The fund reorganizations were carried out to streamline product offerings and operating efficiencies. As a result of the reorganizations, **all of the funds listed below had minor name changes. Please note that ticker symbols and customer account numbers did *not* change as the result of these events.**

The following table contains more information about the funds affected by the reorganizations on July 25, 2003:

Previous Fund Name	Share Class	New Name Effective 7/25/03	Share Class	Ticker Symbol
Wells Fargo National Tax-Free Institutional Money Market Fund	Service	Wells Fargo National Tax-Free Money Market Fund	Service	MMIXX
Wells Fargo Treasury Plus Institutional Money Market Fund	Service	Wells Fargo Treasury Plus Money Market Fund	Service	PRVXX

If you have questions, please contact your relationship manager or a Wells Fargo Customer Service Representative at 1-877-404-7075. We appreciate your business and look forward to continuing our relationship with you.

Investment and Insurance Products:

- Are NOT insured by the FDIC or any other federal government agency
- Are NOT deposits of or guaranteed by the Bank or any Bank affiliate
- May lose value

Wells Fargo Private Client Services provides financial products through various banks and brokerage affiliates of Wells Fargo & Company. Wells Fargo Bank, N.A. and certain of its affiliates provide investment advisory, sub-advisory and/or shareholder services for the Wells Fargo Funds. The Wells Fargo Funds are sponsored and distributed by Stephens Inc., Member NYSE/SIPC. Wells Fargo & Company, Wells Fargo Bank, N.A. and their affiliates are not affiliated with Stephens Inc.

An investment in a Wells Fargo money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although Wells Fargo money market funds seek to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in a money market fund. This letter must be accompanied or preceded by a current prospectus for the Wells Fargo Funds. If you have not received a Fund Prospectus with this mailing please call 1-877-404-7075.



Montana Department of
ENVIRONMENTAL QUALITY

#20
MAILED
3-19-03 *Sharon Bow*

Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.state.mt.us

March 17, 2003

MR GARY KEELER
BUTTE SILVER BOW
126 W GRANITE
BUTTE MT 59701

**RE: LICENSE 20 ANNUAL FINANCIAL ASSURANCE ADJUSTMENTS AND
GROSS-DOMESTIC-PRODUCT IMPLICIT PRICE DEFLATOR**

Dear MR KEELER,

In order to provide for adjustments based on actual annual inflation, we have updated the Department's landfill Financial-Assurance (FA) policy on annual cost estimate adjustments to allow for use of the actual fourth-quarter deflator value from the previous year (e.g. use final 2001 value for 2002 adjustments and so forth). That way, facilities are only paying today for actual inflation that occurred in the previous year, not paying ahead for inherently inaccurate projections of inflation that are not yet documented. Because the final 2001 deflator is available in early 2002, licensees have plenty of time to make the appropriate 2002 FA cost adjustments before the end of the year as required, rather than wait for release of the projected 2002 deflator estimates in early 2003 as before. The policy also allows the facilities that selected trust fund agreements to easily provide annual payment by the anniversary date.

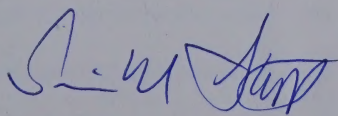
The 2002 inflation factor using the final 2001 deflator (2.3% annual change) is 1.023 (multiplier).

Due to local variations in supply/demand for materials and contracting costs each facility must include a 10% contingency in their cost estimates and submit an actual current-dollar cost estimate every five years to demonstrate the accuracy of the inflationary adjustments. These standard engineering practices protects the licensee and the Department from cost inaccuracies that may compound (high or low) over the long periods of time typical of closure, post-closure, and corrective-action FA coverage. Many facilities already employ these practices. Of course, new current-dollar third-party cost estimates are required whenever the FA cost structure changes for any reason.

Although the FA rules allow amortization of landfill unit closure and post-closure costs over the life of the facility, we encourage licensees of multi-unit facilities to amortize these costs for each unit over the life of each unit, avoiding large potential shortfalls in available closure or post-closure funds as each unit closes or if the facility closes prematurely.

We hope these policy adjustments both simplify and equilibrate the FA process for landfills. If you have any comments or suggestions, please contact me at the Permitting and Compliance Division, Community Services Bureau, Waste Management Section: voice 406.444.4725, email tstepp@state.mt.us or FAX 406.444.1374.

Sincerely,


Tim Stepp
Solid Waste Program

MAILED

ENVIRONMENTAL QUALITY



July 1995

P.O. Box 206901 • Helena, MT 59620-9001 • (406) 444-1544 • www.deq.state.mt.us

March 17, 2003

AIR RARY KEELER
BUTTE SUTHER BOW
130 W GRANITE
BUTTE MT 59701

RE: LICENSE TO ANNUAL FINANCIAL ASSURANCE ADJUSTMENTS AND
GROSS DOMESTIC PRODUCT IMPLICIT PRICE DEFATOR

Dear MR KEELER:

In order to provide for adjustments based on actual annual inflation, we have updated the Department's landfill
Financial Assurance (FA) policy on annual cost estimate adjustments to allow for use of the actual fourth-
quarter dollar value from the previous year (e.g. the first 2001 value for 2002 adjustments and so forth). This
way, facilities are only paying today for actual inflation that occurred in the previous year, not paying ahead for
inflationary insurance projections of inflation that are not yet documented. Because the first 2001 dollar is
available in early 2002, licensees have plenty of time to make the appropriate 2002 FA cost adjustments before
the end of the year as required, rather than wait for release of the projected 2002 dollar estimates in early 2003
as before. The policy also allows the facilities that selected that third agreement to easily provide annual
payments by the anniversary date.

The 2002 inflation factor is 1.023 (multiplier)

Due to local variations in landfill unit closure and post-closure costs each facility must include a 10%
contingency in its annual current-dollar cost estimate every five years to
cover the risk of cost increases. These standard engineering practices protect the
licensee and the public. The cost estimates may be compounded (high or low) over the long periods of
landfill unit closure and post-closure costs. Many facilities already employ these
practices. Of course, the third-party cost estimates are required whenever the FA cost estimate
changes for any reason.

Although the FA rules allow amortization of landfill unit closure and post-closure costs over the life of the
facility, we encourage licensees of multi-unit facilities to amortize these costs for each unit over the life of each
unit, avoiding large potential shortfalls in available closure or post-closure funds at each unit closure or if the
facility closes prematurely.

We hope these policy adjustments both simplify and expedite the FA process for landfills. If you have any
comments or suggestions, please contact me at the Planning and Compliance Division, Community Services
Section, Waste Management Section, voice 406-444-4725, email stephen@deq.state.mt.us or FAX 406-444-1374.

Steph

Sincerely,
Tom Sapp
Solid Waste Program

DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING & COMPLIANCE DIVISION

Community Services Bureau
Waste Management Section

MARC RACICOT, GOVERNOR



STATE OF MONTANA

Phone: (406)444-4400

Fax: (406)444-1374

Metcalf Building
1520 E Sixth Ave
PO Box 200901
Helena, MT 59620-0901

June 4, 1998

To all Class II and Class IV landfills in Montana that are undergoing corrective action:

Corrective action cost estimates are to be updated annually for inflation and updated if there are changes to the corrective action program that increase or decrease costs. Annual adjustments for inflation should be submitted with the annual report. Adjustments to the corrective action cost estimate that result from changes to the corrective action program should be submitted at the time of the change in the corrective action program. If you are one of the facilities undertaking corrective action and your facility has not already submitted an updated corrective action cost estimate for 1998, please do so on the attached form. Those facilities that have already submitted updated cost estimates will be contacted if additional information is required. Next year the update form will be included with the annual license renewal application mailed to license holders.

Sincerely,

Ken Kapsi

Ken Kapsi
Environmental Engineer
Waste Management Section

FAUSR\CB5450\WP\CORRFINI.WPD

Corrective Action Cost Estimate

Those facilities required to undertake corrective action must annually adjust the corrective action cost estimate for inflation until the corrective action program is completed in accordance with ARM 17.50.710 (8)(f). The inflation adjustment to the corrective action cost estimate is made by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business.

Inflation adjustment for corrective action cost estimates

The Implicit Price Deflator for Gross National Product can be obtained through the RCRA/Superfund Hotline (1-800-424-9346). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The adjustment is made by multiplying the previous years corrective action cost estimate by the inflation factor. The result is the adjusted post-closure care cost estimate.

- | | |
|--|---------------|
| 1. Current corrective action cost estimate | _____ |
| 2. 1996 Annual Implicit Price Deflator For GNP | <u>110.18</u> |
| 3. 1997 Annual Implicit Price Deflator For GNP | <u>112.35</u> |
| 4. Inflation factor for 1997 (Divide #3 by #2) | <u>1.0197</u> |
| 5. Inflation adjusted corrective action cost estimate for 1998
(Multiply current cost estimate by inflation factor) | _____ |

Other adjustments to corrective action cost estimates

An increase in the corrective action cost estimate and the amount of financial assurance required may be necessary if changes to the corrective action plan or the landfill conditions increase the maximum cost of corrective action program required under ARM 17.50.710.

The owner or operator may reduce the amount of the corrective action cost estimate and the amount of financial assurance if the cost estimate exceeds the maximum remaining costs of corrective action. The owner or operator must receive approval from the Department for the reduction of the corrective action cost estimate and the reduction in the amount of financial assurance. The justification for the amount of financial assurance must be placed in the operating record.

- | | |
|--|-------|
| 1. Current corrective action cost estimate | _____ |
| 2. Was a new corrective action cost estimate developed for 1998? | _____ |
| 3. Amount of new corrective action cost estimate for 1998 | _____ |



PLEASE SEND THE LETTER & ATTACHMENT TO

	<u>LICENSE NO</u>
- BFI ~~2001~~	116 L
- PARK COUNTY	13 L
- CITY OF HELENA	90 PC
- RICHMOND COUNTY	102 PC
- FLATHEAD COUNTY	18 L
- BOREMAN CITY LANDFILL	196 L
- BUTTE SILVER BOW	20 PC

STATUS

PC = POST CLOSURE

L = ACTIVE LICENCE

Exhibit No

1115 4

12 4

10 40

10 90

13 4

14 4

20 40

1971
Hwy 100
City of H...
P... County
F... County
C...
S...
S...
S...

Notes

10 = Post 1000
1 = 1000 1000

ADDRESSES

~~117~~
~~118~~
Park County Solid Waste District

Po Box 1212

Livingston MT 59047-1212

City of Helena Landfill

316 N Park Ave

Helena MT 59601-5099

Richland County Landfill

2140 W Holly St

Sidney MT 59270-5700

Flathead County Solid Waste

3928 US HWY 93N

Kalispell MT 59901-6819

Bozeman City Landfill

Po Box 640

Bozeman MT 59711-0640

Butte Silver Bow Landfill

155 W Granite St

Butte MT 59701-9256

BFI Missoula Landfill

Po Box 8449

Missoula MT 59807-8449

1st Lt. William B. Smith
1st Lt. William B. Smith
1st Lt. William B. Smith

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1st Lt. William B. Smith

Butte Silver Bow
20

DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING & COMPLIANCE DIVISION

Community Services Bureau
Waste Management Section

MARC RACICOT, GOVERNOR



STATE OF MONTANA

Phone: (406)444-4400

Fax: (406)444-1374

Metcalf Building
1520 E Sixth Ave
PO Box 200901

March 12, 1998

Helena, MT 59620-0901

RE: Financial Assurance Guidance Document

The Department has completed a financial assurance guidance document for Class II and Class IV landfills in Montana. This document was finalized after extensive meetings with Mr. Barry Damschen and after a meeting on January 21, 1998 with a number of municipalities, consultants and private landfill operators.

At the January 21, 1998 meeting agreement was reached that a narrative basis for the cost estimates would be provided with the cost estimates. At that meeting it was agreed that estimates should include support documentation such as bid tabulations, the approximate hauling distances from borrow sources to closure areas, the number of wells to be sampled, and state the assumptions that were made in developing the cost estimates. This approach was acceptable to the meeting attendees.

The Department hopes you will find the enclosed guidance document useful in the preparation of closure and post closure cost estimates.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Dilliard".

Jon Dilliard

Community Services Bureau Chief

FAUNITSHAR/P&C/FINANCIA.WPD

A GUIDE FOR THE PREPARATION OF COST ESTIMATES FOR CLOSURE AND POST-CLOSURE CARE AT CLASS II AND CLASS IV LANDFILLS IN MONTANA

INTRODUCTION

The owner or operator of each Class II and IV landfill in Montana is required to maintain financial assurance sufficient to hire a third party to close and provide post-closure care at the landfill. The amount of financial assurance that must be available is to be based on accurate cost estimates for closure and post-closure care.

The purpose of this document is to give an owner or operator of a landfill a guide as to what line items should be considered in their cost estimates for closure and post-closure care. Please be aware that this is a guide only, and not all of the items will be necessary or appropriate to use in the development of the cost estimates for closure and post-closure care at a particular landfill.

FINANCIAL ASSURANCE FOR CLOSURE AT LANDFILLS

A detailed written cost estimate is to be provided, in current dollars, showing the cost of hiring a third party to close the largest active portion of the landfill ever requiring final closure at any time during the life of the facility in accordance with the final closure plan. "Active portion" is defined at ARM 17.50.502(3) as: "that part of a facility or unit that has received or is receiving wastes and that has not been closed in accordance with ARM 17.50.530." The portion to be considered when preparing the cost estimate for closure of a Class II or Class IV landfill is the largest active portion that will ever be open at the facility according to the closure plan. Please note, unit or facility parts are not considered "closed in accordance with ARM 17.50.530" until they have been inspected and approved by the department and a notation has been made on the deed to the landfill facility property in accordance with ARM 17.50.530(1)(h) and (i).

The cost estimate for financial assurance is to be submitted with any new landfill permit application, with any application for a permit transfer, and in applicable permit modifications that affect the closure cost estimate.

At a January 21, 1998 meeting with a number of municipalities, consultants, and private landfill operators, agreement was reached that a narrative basis for cost estimates would be provided with the closure cost estimates. At that meeting it was decided that estimates should include support documentation such as, sources of information to confirm estimates, approximate hauling distances from borrow sources to closure areas, and state the assumptions that were made in developing the cost estimates. Sources of information to confirm estimates include: contractor estimates, invoices from recently completed closure work, unit costs from cost estimating handbooks (e.g. R.S. Means Heavy Construction Cost Data), accepted bid tabulations, and cost workups.

The cost estimate shall equal the cost of closing the largest active portion of all operating landfill units ever requiring a final cover at any time during the active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan.

During the active life of the landfill unit, the annual report required by ARM 17.50.412 is to contain an update of the closure cost estimate that is adjusted for inflation. The adjustment may be made by developing new cost estimates in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

An increase in the closure cost estimate and the amount of financial assurance required may be necessary if changes to the final closure plan or the landfill conditions increase the maximum cost of closure at any time during the remaining life of the facility.

A reduction in the closure cost estimate and the amount of financial assurance required may be approved if the cost estimate exceeds the maximum cost of closure at any time during the remaining life of the facility and the owner or operator has provided written notice to the Department that contains detailed justifications for the reduction of the closure cost estimate and the amount of financial assurance required.

FINANCIAL ASSURANCE FOR POST-CLOSURE CARE AT LANDFILLS

An owner or operator is to provide a detailed written cost estimate, in current dollars, of the cost of hiring a third party to conduct post-closure care activities for the landfill unit, in accordance with the post-closure care plan. The post-closure care cost estimate is used to determine the amount of financial assurance required for post-closure care activities described in the post-closure care plan over the entire post-closure care period. The cost estimate for financial assurance is to be submitted with any new landfill permit application, with any application for a permit transfer, and in applicable permit modifications that affect the post-closure cost estimate.

The cost estimate for post-closure care is to be based on the most expensive costs of post-closure care during the post-closure care period.

The post-closure cost estimate should include a narrative that indicates the number of groundwater wells and gas monitoring wells that will be sampled.

During the active life and post-closure care period of the facility, the annual report required by ARM 17.50.412 is to contain an update of the post-closure care cost estimate that is adjusted for inflation. The adjustment may be made by developing new cost estimates in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The adjustment is made by multiplying the post-closure care cost

The cost estimate shall report the cost of closing the facility and the portion of all operating facilities units over reporting a final report at any time during the active life when the extent and manner of its operation would make closure the most expensive, as indicated by the closure plan.

During the active life of the facility and the annual report required by ARMI 17.504.12 is to contain an update of the closure cost estimate that is adjusted for inflation. The adjustment may be made by developing new cost estimates in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

An increase in the closure cost estimate and the amount of financial assistance reported may be necessary if changes to the final closure plan or the facility conditions increase the maximum cost of closure at any time during the remaining life of the facility.

A reduction in the closure cost estimate and the amount of financial assistance reported may be approved if the cost estimate exceeds the maximum cost of closure at any time during the remaining life of the facility and the owner or operator has provided written notice to the Department that contains detailed justifications for the reduction of the closure cost estimate and the amount of financial assistance required.

FINANCIAL ASSISTANCE FOR POST-CLOSURE CARE AT LANDFILLS

An owner or operator is to provide a detailed written cost estimate, in current dollars, of the cost of having a third party to conduct post-closure care activities for the landfill unit, in accordance with the post-closure care plan. The post-closure care cost estimate is used to determine the amount of financial assistance required for post-closure care activities described in the post-closure care plan over the entire post-closure care period. The cost estimate for financial assistance is to be submitted with any new landfill permit application, with any application for a permit renewal, and in applicable permit modifications that affect the post-closure cost estimate.

The cost estimate for post-closure care is to be based on the most expensive costs of post-closure care during the post-closure care period.

The post-closure cost estimate should include a narrative that indicates the number of ground-water wells and gas monitoring wells that will be installed.

During the active life and post-closure care period of the facility, the annual report required by ARMI 17.504.12 is to contain an update of the post-closure care cost estimate that is adjusted for inflation. The adjustment may be made by developing new cost estimates in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The adjustment is made by multiplying the post-closure care cost

estimate by the inflation factor. The result is the adjusted post-closure care cost estimate.

An increase in the post-closure care cost estimate and the amount of financial assurance required may be necessary if changes to the final post-closure care plan or the landfill conditions increase the maximum cost of post-closure care at any time during the remaining active life of the facility.

A reduction in the post-closure care cost estimate and the amount of financial assurance required may be approved if the cost estimate exceeds the maximum cost of post-closure care at any time during the remaining life or post-closure care period of the facility and the owner or operator has provided written notice to the Department that contains a detailed justification for the reduction of post-closure care cost estimate and the amount of financial assurance required.

(A brief description of each line item, as numbered in the tables, is given after the series of tables.)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
1.0	Engineering				
1.1	Topographic Survey				
1.2	Boundary Survey for Airfield				
1.3	Site Evaluation				
1.4	Development of Plans				
1.5	Construction Administration, Bidding and Award				
1.6	Administrative Costs for the Construction of Final Cover and Affected to the Public				
1.7	Project Management, Construction Observation and Testing				
1.8	Interim Wall Construction Cost				
1.9	NPDES Construction Storm Water Permit, and other permits				
	SUBTOTAL				
	10% CONTINGENCY				
	ENGINEERING TOTAL				

estimated by the inflation factor. The result is the adjusted post-churn cost estimate.

An increase in the post-churn cost estimate and the amount of financial assurance required may be necessary if changes in the final post-churn cost plan or the facility conditions increase the maximum cost of post-churn care at any time during the remaining active life of the facility.

A reduction in the post-churn cost estimate and the amount of financial assurance required may be approved if the cost estimate exceeds the maximum cost of post-churn care at any time during the remaining life of post-churn care period of the facility and the owner or operator has provided written notice to the Department that contains a detailed justification for the reduction of post-churn care cost estimates and the amount of financial assurance required.

PREPARATION OF COST ESTIMATES

The following tables itemize costs for landfill closures and post closure care. The purpose of the tables is to give an owner or operator of a landfill a guide as to what line items should be considered in their cost estimates for closure and post-closure care. Please be aware that this is a guide only, and not all of the items will be necessary or appropriate to use in the development of the cost estimates for closure and post-closure care at a particular landfill.

Cost Estimates for Closure at a Landfill

(A brief description of each line items, as numbered in the tables, is given after the series of tables.)

	ITEM	UNIT MEASURE	COST/UNIT	NO. UNITS	TOTAL COST
1.0	Engineering				
1.1	Topographic Survey				
1.2	Boundary Survey for Affidavit				
1.3	Site Evaluation				
1.4	Development of Plans				
1.5	Contraction Administration, Bidding and Award				
1.6	Administrative Costs for the Certification of Final Cover and Affidavit to the Public				
1.7	Project Management: Construction Observation and Testing				
1.8	Monitor Well Consultant Cost				
1.9	NPDES Construction Storm Water Permit, and other permits				
	SUBTOTAL				
	10% CONTINGENCY				
	ENGINEERING TOTAL				

PREPARATION OF COST ESTIMATES

The following tables present costs for landfill closure and post-closure care. The purpose of the tables is to give an example of preparation of a landfill closure and post-closure care estimate. It is not intended to give an example of a landfill closure and post-closure care estimate. Please be aware that this is a guide only and not all of the items will be necessary or appropriate in use in the development of a landfill closure and post-closure care estimate. The items are listed in the tables as an example only.

Cost Estimates for Closure and Post-Closure Care

(A brief description of each line item, as numbered in the tables, is given after the tables of tables.)

ITEM	POST-CLOSURE CARE	CLOSURE	POST-CLOSURE CARE	POST-CLOSURE CARE
1.0 Engineering				
1.1 Topographic Survey				
1.2 Boundary Survey for Adjacent				
1.3 Site Inspection				
1.4 Development of Plans				
1.5 Construction Administration, Bidding and Award				
1.6 Administration Costs for the Construction of Final Cover and Addition to the Budget				
1.7 Project Management, Construction Observation and Testing				
1.8 Monitor Well Construction Cost				
1.9 OTHER Construction Items: Water Pumps, and other pumps				
SUBTOTAL				
10% CONTINGENCY				
ENGINEERING TOTAL				

ITEM	UNIT MEASURE	COST/UNIT	NO. UNITS	TOTAL COST
2.0 Construction				
2.1 Final Cover System				
2.1.1 Gas Extraction Layer				
2.1.2 Infiltration Layer				
2.1.2a Soil Placement				
2.1.2b Soil Processing				
2.1.2c Soil Amendment				
2.1.2d Soil Purchase				
2.1.2e Transportation				
2.1.3 Flexible Membrane Cover				
2.1.4 Drainage Layer				
2.2 Erosion Layer Placement				
2.3 Revegetation				
2.4 Site Grading and Drainage				
2.5 Site Fencing and Security				
2.6 Leachate Collection System Completion				
2.7 Completion of Gas Monitoring System				
SUBTOTAL				
2.8 Mobilization, Bonding, Insurance, Demobilization				
10% CONTINGENCY				
CONSTRUCTION TOTAL				

ITEM	UNIT MEASURE	QUANTITY	NO. UNITS	TOTAL COST
1.0 Construction				
1.1 First Floor Slab				
1.1.1 Cast in situ concrete				
1.1.2 Reinforcement				
1.1.3 Soil Preparation				
1.1.4 Soil Foundation				
1.1.5 Soil Foundation				
1.1.6 Soil Foundation				
1.1.7 Soil Foundation				
1.1.8 Soil Foundation				
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1.1.97 Soil Foundation				
1.1.98 Soil Foundation				
1.1.99 Soil Foundation				
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1.2 Subtotal				
1.3 Mechanical, Electrical, and Plumbing (MEP)				
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1.3.99 MEP				
1.3.100 MEP				
1.4 Construction Total				
1.5 Construction Total				

ITEM	UNIT MEASURE	COST/UNIT	NO. UNITS	TOTAL COST
3.0 Ground-water Characterization Cost				
4.0 Monitor Well Installation Costs				
4.1 Monitoring Well Installation				
4.2 Piezometer and Monitor Well Plugging				
SUBTOTAL				
10% CONTINGENCY				
GROUND-WATER INSTALLATION TOTAL				

Calculation of Total Closure Costs

Engineering Total: _____

Ground Water Total: _____

Construction Total: _____

TOTAL CLOSURE COSTS: _____

ITEM	UNIT PRICE	QUANTITY	NO. UNITS	TOTAL COST
Ground-water Investigation Cost				
Monitor Well Installation Cost				
Monitoring Well Installation				
Piezometer and Monitor Well Logging				
SUBTOTAL				
10% CONTINGENCY				
GROUND-WATER INSTALLATION TOTAL				

Calculation of Total Closure Costs

Engineering Total:
Ground Water Total:
Construction Total:
TOTAL CLOSURE COSTS:

Cost Estimates for Post-Closure Care

ITEM	UNIT MEASURE	COST/UNIT	NO. UNITS	TOTAL COST
1.0 Engineering Costs				
1.2 Site Inspection and Record keeping (annual)				
1.3 Correctional Plans and Specifications (annual)				
1.4 Site Monitoring (semi-annual groundwater monitoring and quarterly methane monitoring)				
2.0 Construction Costs				
3.0 Leachate Disposal				
SUBTOTAL				
10% CONTINGENCY				
TOTAL				

DESCRIPTION OF LINE ITEMS

1.0 Engineering

Engineering costs have been divided into seven major items: topographic survey, waste boundary field notes, site evaluation, development of plans, contract administration, bidding and award, administrative costs, and closure inspection and testing. The items may each have a variety of tasks but the nature of the work in the various tasks have been combined in the major items.

1.1 Topographic Survey

A topographic survey will generally be required to ascertain the existing height and top slope of the landfill so that permit compliance can be evaluated and the final closure system, drainage system, and final grading can be engineered.

ITEM	UNIT MEASURE	CONTRACT	NO. UNITS	TOTAL COST
1.0 Engineering Costs				
1.1 Site Inspection and Review (including travel)				
1.2 Construction Plans and Specifications (including travel)				
1.3 Site Monitoring (including travel, ground-water monitoring and testing, and other monitoring)				
1.4 Construction Costs				
1.5 Landfill Closure				
1.6 Landfill Decommissioning				
SUBTOTAL				
10% CONTINGENCY				
TOTAL				

DESCRIPTION OF THE ITEMS

1.0 Engineering

Engineering costs have been divided into seven major items to provide a breakdown of the costs. The items are: site inspection and review, construction plans and specifications, site monitoring, construction costs, landfill closure, landfill decommissioning, and a 10% contingency. The items are described below.

1.1 Topographic Survey

A topographic survey will generally be required to ascertain the existing height and top slope of the landfill to determine compliance with the final closure system, drainage system, and final grading can be engineered.

1.2 Boundary Survey

A boundary survey is a metes and bounds description that is required for filing the affidavit of closure and making the required changes on the record of title on the area of the site which has received waste. This item may already be done at the landfill and only the cost of filing the affidavit is needed (see item 1.6).

1.3 Site Evaluation

The site evaluation includes a site inspection to identify waste disposal areas, analyze drainage and erosion protection needs, and to determine other site operational features that may not be in compliance with the permit. Analysis of ground water samples, landfill gas analysis, operation records, etc. should also be included.

1.4 Development of Plans

The final closure plan includes the final cover system design and specifications, grading and drainage plans, specifications for revegetation, design of any other site improvements required, and preparation of a closure schedule. This item also includes the coordination of the closure plan with the Department, including the required notifications and reporting.

1.5 Contract Administration

This includes costs associated with the construction bidding process and contracting with the construction contractor.

1.6 Administrative Costs

This includes costs of recording a notation on the deed to the landfill property notifying any potential purchaser that the land has been used as a landfill.

1.7 Closure Inspection and Testing

Closure inspection and testing costs include the cost of a Professional Engineer to observe the closure construction, perform appropriate cover thickness and permeability verifications, and prepare a certification verifying that closure has been completed in accordance with the closure plan that will be placed in the operating record.

1.8 Ground Water Monitor well Consultant Costs

Consultant costs for monitor well installation include preparation of work plans, well installation observation, well development, and the data analysis report.

1.2 Boundary Survey

A boundary survey is a meter and bench description that is required for filing the affidavit of closure and setting the boundary between the tract of land on the one side of the line which has received water. This item may already be done at the landfill and only the cost of filing the affidavit is needed (see item 1.6).

1.3 Site Evaluation

The site evaluation includes a site inspection to identify waste disposal areas, analyze drainage and erosion protection needs, and to determine what the operational features that may not be in compliance with the permit. Analysis of ground water sampled landfill gas analysis, operation records, etc. should also be included.

1.4 Development of Plan

The final closure plan includes the final cover system design and specifications, grading and drainage plans, specifications for revegetation, design of any other site improvements required, and preparation of a closure schedule. This item also includes the coordination of the closure plan with the Department, including the required notifications and reporting.

1.5 Permit Administration

This includes costs associated with the construction bidding process and contracting with the construction contractor.

1.6 Administrative Costs

This includes costs of recording a notation on the deed to the landfill property notifying any potential purchaser that the land has been used as a landfill.

1.7 Closure Inspection and Testing

Closure inspection and testing costs include the cost of a Professional Engineer to observe the closure construction, perform appropriate cover thickness and permeability verifications, and prepare a certification verifying that closure has been completed in accordance with the closure plan that will be placed in the operating record.

1.8 Ground Water Monitoring Well Construction Costs

Construction costs for monitor well installation include preparation of work plans, well installation observation, well development, and the data analysis report.

1.9 NPDES Construction Storm Water Permit compliance Package

The consultant is to prepare all necessary plans, specifications, and other documents necessary for compliance with all applicable federal and state laws and requirements necessary for the closure of the site. One of these required steps is compliance with the Federal Clean Water Act.

2.0 Construction Costs

Closure construction costs include those costs for mobilization, bonding, insurance, construction of the final cover system, site grading, and drainage improvements. Other construction costs may be necessary to correct on-site problems.

2.1 Final Cover System

The standard final cover system at Class II and IV Landfills is an infiltration layer that is a minimum of 18 inches thick of earthen material that has a permeability less than or equal to the permeability of any bottom liner system or if there is no liner in the landfill unit, no greater than the permeability of the natural soils, or a permeability of no greater than 1×10^{-5} cm/sec, whichever is less, and an erosion layer of a minimum of 6 inches of earthen material that is capable of sustaining plant growth.

2.1.1 Gas Extraction Layer

Although a gas extraction system is not required as part of the standard final cover it may be advantageous to include provisions for such a system.

2.1.2 Infiltration Layer

The infiltration layer of the final cover system consists of an 18-inch thick layer of constructed clay or other earthen materials cap with a permeability matching that of the bottom liner but not greater than 1×10^{-5} cm/sec.

2.1.3 Flexible Membrane Cover

A flexible membrane cover will be necessary at certain landfill sites where the required permeabilities cannot be attained in the infiltration layer by earthen materials alone.

2.1.4 Drainage Layer

A drainage layer may be used between the erosion layer and the flexible membrane cover.

The consultant is to prepare all necessary plans, specifications, and other documents necessary for compliance with all applicable federal and state laws and requirements necessary for the element of the site. One of these required steps is compliance with the Federal Clean Water Act.

2.0 Construction Costs

Construction costs include those costs for mobilization, bonding, insurance, construction of the final cover system, site grading, and drainage improvements. Other construction costs may be necessary to correct on-site problems.

2.1 Final Cover System

The standard final cover system in Class II and IV Landfills is an infiltration layer that is a minimum of 18 inches thick of certain material that has a permeability less than or equal to the permeability of any bottom liner system or if there is no liner in the landfill unit, no greater than the permeability of the natural soils, or a permeability of no greater than 1×10^{-10} cm/sec, which ever is less, and an erosion layer of a minimum of 6 inches of certain material that is capable of maintaining stable growth.

2.1.1 Gas Extraction Layer

Although a gas extraction system is not required as part of the standard final cover, it may be advantageous to include provisions for such a system.

2.1.2 Infiltration Layer

The infiltration layer of the final cover system consists of an 18-inch thick layer of constructed clay or other certain materials cap with a permeability less than that of the bottom liner but not greater than 1×10^{-10} cm/sec.

2.1.3 Flexible Membrane Cover

A flexible membrane cover will be necessary at certain landfill sites where the required permeabilities cannot be attained in the infiltration layer by certain materials alone.

2.1.4 Drainage Layer

A drainage layer may be used between the erosion layer and the flexible membrane cover.

2.2 Erosion Layer Placement

The erosion layer must be a minimum of 6 inches of earthen material capable of sustaining plant growth and protecting the infiltration layer from frost effects. The existing site topsoil is generally acceptable for this application, although a layer thicker than 6 inches may be required if the soil used has high shrink/swell characteristics that would promote cracking or the infiltration layer is susceptible to frost damage. Since acceptable soil is generally available on-site, only the cost of placement has been included.

2.3 Revegetation

Revegetation includes the activities necessary to provide vegetative erosion protection over the surface of the completed final cover. In some instances, temporary vegetation measures are used to establish vegetation quickly until permanent revegetation can be developed. The costs are based on seeding with grasses and the application of appropriate fertilizer. Other methodologies may include sodding or hydromulch applications.

2.4 Site Grading and Drainage

Site grading and drainage includes the final grading of the site, drainage improvements and sedimentation controls for proper closure of the site.

2.5 Site Fencing and Security

Site fencing and security is to be added to secure any area of the landfill which has received waste and is undergoing closure but may not have been fenced.

2.6 Leachate Collection System Completion

In the event of forced closure, there may be circumstances where the leachate collection system has not been completed. In this event, the leachate collection system must be completed with permanent outfalls and permanent cleanouts installed.

2.7 Gas Monitoring System Completion

In the event of forced closure, there may be circumstances where the gas monitoring system, if required, has not been installed completely in association with the unit to be closed. The gas monitoring system may include the installation of pipes and appurtenances necessary for the conduction of the required monitoring.

2.8 Mobilization, Bonding, Insurance and Demobilization

Equipment mobilization and demobilization costs are in the range of 0.15-3.0% of construction costs, performance bond is in the range of 2.0-10% of construction costs, public liability insurance is in the range of 2.0-10% of construction costs, personnel mobilization costs are 0.5-1.0% of construction costs, and builders risk insurance is 0.1-1.0% of construction costs.

2.2. Erosion Control Measures

The erosion control must be a minimum of 2 inches of surface material capable of sustaining plant growth and protecting the subsoil from frost action. The existing topsoil is generally acceptable for this application, although a layer thicker than 6 inches may be required if the soil used has high shrink-swell characteristics that would promote cracking or the infiltration layer is susceptible to frost damage. Since acceptable soil is generally available on-site, only the cost of placement has been included.

2.3. Revegetation

Revegetation includes the activities necessary to provide vegetative erosion protection over the surface of the disturbed final slope. In some instances, temporary vegetation measures are used to establish vegetation quickly until permanent revegetation can be developed. The same are based on seedling with grasses and the application of appropriate fertilizer. Other methodologies may include sodding or hydroseeding applications.

2.4. Site Grading and Drainage

Site grading and drainage includes the final grading of the site, drainage improvements and sedimentation controls for proper closure of the site.

2.5. Site Fencing and Security

Site fencing and security is to be added to secure any area of the landfill which has received waste and is undergoing closure but may not have been fenced.

2.6. Gas Collection System Completion

In the event of forced closure, there may be circumstances where the landfill collection system has not been completed. In this event, the landfill collection system must be completed with permanent outside and permanent clean-out installed.

2.7. Gas Monitoring System Completion

In the event of forced closure, there may be circumstances where the gas monitoring system, if required, has not been installed completely in accordance with the plan to be closed. The gas monitoring system may include the installation of pipes and apparatuses necessary for the construction of the required monitoring.

2.8. Mobilization, Insurance and Demobilization

Equipment mobilization and demobilization costs are in the range of 0.12-0.04% of construction costs, performance bond is in the range of 2.0-10% of construction costs, public liability insurance is in the range of 2.0-10% of construction costs, personnel mobilization costs are 0.2-1.0% of construction costs, and builder's risk insurance is 0.1-1.0% of construction costs.

4.0 Monitor Well Installation

A ground water monitoring well network, if monitoring was required at the landfill unit, should have been installed prior to the beginning of any waste disposal operations. In the event of forced closure of a site, it may become necessary to relocate the point of compliance. This may require the installation of new monitor wells and the proper plugging of those well locations which are no longer suitable.

4.1 Monitor Well Installation

Monitor well installation includes all labor (not consultant labor) and materials to install the monitor wells including surveying.

4.2 Piezometer or Monitor Well Abandonment

Piezometer or monitor well abandonment is the cost of abandoning (plugging) piezometers or monitor wells that are no longer needed. Determine the number of piezometers or monitor wells to be abandoned and include the costs.

4.3 Consultant Costs

Consultant costs for monitor well installation include preparation of work plans, well installation observation, well development, and the data analysis report.

Contingency Costs

Including a 10 percent contingency for construction and engineering costs would be prudent.

Post-Closure Care

The post-closure care period is established to be 30 years or as long as the Department determines is required for the facility or unit to become stabilized and to protect human health and the environment. During this period, continuous maintenance must be ongoing to assure the integrity and effectiveness of the final cover and other required systems. Also included in this section is the cost for disposal of leachate, since leachate may still be generated during the post-closure care period. The costs for post-closure care are divided into engineering costs, construction costs and leachate disposal costs.

1.0 Engineering Costs

Engineering costs include the preparation or amendment of a post-closure plan, site inspections, site monitoring, and preparation of correction plans if required.

4.0 Monitor Well Installation

A ground water monitoring well network, if monitoring was required at the landfill unit, should have been installed prior to the beginning of any waste disposal operations. In the event of forced closure of a site, it may become necessary to relocate the point of compliance. This may require the installation of new monitor wells and the proper plugging of these well locations which are no longer suitable.

4.1 Monitor Well Installation

Monitor well installation includes all labor (not consultant labor) and materials to install the monitor wells including surveying.

4.2 Plugging or Abandonment of Monitor Well

Plugging or monitor well abandonment is the cost of abandoning (plugging) piezometers or monitor wells that are no longer needed. Determine the number of piezometers or monitor wells to be abandoned and include the costs.

4.3 Consultant Costs

Consultant costs for monitor well installation include preparation of work plans, well installation observation, well development, and the data analysis report.

Contingency Costs

Include a 10 percent contingency for construction and engineering costs would be prudent.

Post-Closure Costs

The post-closure care period is established to be 30 years or as long as the Department determines is required for the facility or unit to become stabilized and to protect human health and the environment. During this period, continuous maintenance must be ongoing to assure the integrity and effectiveness of the final cover and other required systems. Also included in this section is the cost for disposal of leachate, since leachate may still be generated during the post-closure care period. The costs for post-closure care are divided into engineering costs, construction costs and leachate disposal costs.

1.0 Engineering Costs

Engineering costs include the preparation or amendment of a post-closure plan, site inspections, the monitoring, and preparation of correction plans if required.

1.2 Site Inspections

Site inspections should be performed at least annually and should include identification of areas experiencing settlement or subsidence, identification of erosion or other drainage-related problems, inspection of the fencing, and inspection of the leachate collection system and monitoring systems.

1.3 Correctional Plans and Specifications

Correctional plans and specifications include the costs for an engineering consultant to prepare plans and specifications to correct problems identified during the site inspections. This cost is obviously dependent upon the quality of care taken during the closure of the site and ongoing maintenance during previous post-closure care years. The cost may be higher during earlier post-closure care years and taper down to zero cost during the end of the post-closure care period.

1.4 Site Monitoring

Site monitoring is the cost to perform semi-annual ground water sampling and analysis for each monitoring well on-site. Gas monitoring is also performed during the post-closure care period on a quarterly basis and should be included.

2.0 Construction Costs

Post-closure constructions costs include the costs to correct any problems determined by the site inspections and as specified by the engineer's correctional plans and specifications. These costs will also include any ongoing site maintenance that is needed throughout the post-closure care period.

3.0 Leachate Disposal

Leachate disposal costs are difficult to estimate and would only be required at landfills that have a liner and a leachate collection system. Since the landfill will be closed, recirculation of leachate back into the landfill would not be possible without ongoing maintenance costs. The cost estimates for leachate disposal would be based on an average rate of leachate generation during the past few years of active life of the landfill unit and the cost of the treatment or recirculation. During the post-closure period, the volume of leachate being generated should decrease substantially because the landfill unit has received a final cover.

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1.3 Site Inspection

The inspection should be performed at least annually and should include identification of areas experiencing retention or subsidence, identification of erosion or other drainage-related problems, inspection of the leachate collection system and monitoring systems.

1.4 Corrective Plans and Specifications

Corrective plans and specifications include the costs for an engineering consultant to prepare plans and specifications to correct problems identified during the site inspection. This cost is primarily dependent upon the quality of care taken during the closure of the site and ongoing maintenance during previous post-closure care years. The cost may be higher during earlier post-closure care years and taper down to zero cost during the end of the post-closure care period.

1.5 Site Monitoring

The monitoring is the cost to perform semi-annual ground water sampling and analysis for each monitoring well on site. The monitoring is also performed during the post-closure care period on a quarterly basis and should be included.

2.0 Construction Costs

Post-closure construction costs include the costs to correct any problems determined by the site inspection and as specified by the engineer's corrective plans and specifications. These costs will also include any ongoing site maintenance that is needed throughout the post-closure care period.

3.0 Leachate Disposal

Leachate disposal costs are difficult to estimate and would only be required at landfills that have a liner and a leachate collection system. Since the landfill will be closed, recirculation of leachate back into the landfill would not be possible without ongoing maintenance costs. The cost estimates for leachate disposal would be based on an average rate of leachate generation during the past few years of active life of the landfill unit and the cost of the treatment or recirculation. During the post-closure period, the volume of leachate being generated should decrease substantially because the landfill unit has received a final cover.

DEPARTMENT OF ENVIRONMENTAL QUALITY *SILVER BOW CO,*
PERMITTING & COMPLIANCE DIVISION *BUTTE SILVER BOW CO*
Community Services Bureau
Waste Management Section *#20*

MARC RACICOT, GOVERNOR

STATE OF MONTANA *FA*

Phone: (406)444-4400

Fax: (406)444-1374

Metcalf Building
1520 E Sixth Ave
PO Box 200901
Helena, MT 59620-0901

May 12, 1998

To all Class II and Class IV landfills in Montana:

Closure and post-closure care cost estimates are to be updated by April 1 of each year. The updated cost estimates are to be included in the annual report required by ARM 17.50.412. If your facility has not already submitted an updated closure and post-closure cost estimate for 1998, please do so on the attached forms. Those facilities that have already submitted updated cost estimates will be contacted if additional information is required. Next year the update form will be included with the annual license renewal application mailed to license holders.

Sincerely,

Ken Kapsi

Ken Kapsi
Environmental Engineer
Waste Management Section

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Closure Cost Estimate

During the active life of the landfill unit, the annual report required by ARM 17.50.412 is to contain an update of the closure cost estimate. The updated closure cost estimate may be made by developing new cost estimates in current dollars, or by using an inflation factor derived from the most recent Annual Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business.

New closure cost estimates

New closure cost estimates should follow the format of the financial assurance guidance document "A Guide For The Preparation Of Cost Estimates For Closure And Post-Closure Care At Class II and Class IV Landfills In Montana". This guidance document is available from the Department upon request.

An increase in the closure cost estimate and the amount of financial assurance required may be necessary if changes to the final closure plan or the landfill conditions increase the maximum cost of closure at any time during the remaining life of the facility.

A reduction in the closure cost estimate and the amount of financial assurance required may be approved if the cost estimate exceeds the maximum cost of closure at any time during the remaining life of the facility and the owner or operator has provided written notice to the Department that contains detailed justifications for the reduction of the closure cost estimate and the amount of financial assurance required.

1. Closure cost estimate for 1997 _____
2. Was a new closure cost estimate developed for 1998? _____
3. Amount of new closure cost estimate for 1998 _____

Inflation adjustment for closure cost estimates

The Implicit Price Deflator for Gross National Product can be obtained through the RCRA/Superfund Hotline (1-800-424-9346). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The adjustment is made by multiplying the previous years closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

4. 1996 Annual Implicit Price Deflator For GNP 110.18
5. 1997 Annual Implicit Price Deflator For GNP 112.35
6. Inflation factor for 1997 (Divide #3 by #2) 1.0197
7. Adjusted closure cost estimate for 1998
(Multiply #6 by #1) _____

Post-Closure Care Cost Estin

During the active life and post-closure care period of the facility, the annual report required by ARM 17.50.412 is to contain an update of the post-closure care cost estimate. The updated post closure care cost estimate may be made by developing new cost estimates in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business.

New post-closure cost estimates

New post-closure care cost estimates should follow the format of the financial assurance guidance document "A Guide For The Preparation Of Cost Estimates For Closure And Post-Closure Care At Class II and Class IV Landfills In Montana". This guidance document is available from the Department upon request.

An increase in the post-closure care cost estimate and the amount of financial assurance required may be necessary if changes to the final post-closure care plan or the landfill conditions increase the maximum cost of post-closure care at any time during the remaining active life of the facility.

A reduction in the post-closure care cost estimate and the amount of financial assurance required may be approved if the cost estimate exceeds the maximum cost of post-closure care at any time during the remaining life or post-closure care period of the facility and the owner or operator has provided written notice to the Department that contains a detailed justification for the reduction of post-closure care cost estimate and the amount of financial assurance required.

1. Post-closure cost estimate for 1997 _____
2. Was a new post-closure cost estimate developed for 1998? _____
3. Amount of new post-closure cost estimate for 1998 _____

Inflation adjustment for post-closure cost estimates

The Implicit Price Deflator for Gross National Product can be obtained through the RCRA/Superfund Hotline (1-800-424-9346). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The adjustment is made by multiplying the previous years post-closure care cost estimate by the inflation factor. The result is the adjusted post-closure care cost estimate.

4. 1996 Annual Implicit Price Deflator For GNP 110.18
5. 1997 Annual Implicit Price Deflator For GNP 112.35
6. Inflation factor for 1997 (Divide #5 by #4) 1.0197
7. Adjusted post-closure cost estimate for 1998
(Multiply #6 by #1) _____

BUTTE-SILVER BOW
DEPARTMENT OF PUBLIC WORKS

Courthouse
Butte, Montana 59701
Phone: (406) 723-8262



County	Silver Bow
Facility & #	Butte 20
Closure	Landfarm
Finan Assur	Liner
GW Corr Meas	Methane
GW Monitoring	O & M
GW Reports	Run - On
Inspections	
Other:	

April 18, 1997

Mr. Patrick Crowley
Acting Program Manager
Department of Environmental Quality
P.O. Box 200901
Helena, Montana 59620-0901

RECEIVED

APR 21 1997

MONTANA
DEPT. OF ENVIRONMENTAL QUALITY
COMMUNITY SERVICES BUREAU

Dear Pat:

You are advised that the Old Butte-Silver Bow landfill license No. 20 stopped accepting waste prior to April 9, 1997.

Final cover will be placed this spring in compliance with the Corrective Measures Assessment and the final 7 acres will be covered.

I have calculated the environmental obligation for closure of the old landfill from the attached Table 6-10 from the Butte-Silver Bow Corrective Measures Assessment which details the anticipated annual post closure monitoring and maintenance costs amount to \$31,900. Also, Butte-Silver Bow is responsible for installing a passive gas venting and the engineering estimate is in the amount of \$62,000 is highlighted on the attachment. As you know, the landfill cover is almost complete and the majority of the final cover is in place awaiting seeding this fall.

I will await your response to the Butte-Silver Bow Financial Assurance Mechanism that was submitted.

Thank you for your assistance.

Sincerely,

Gary Keeler
Landfill Manager

TABLE 6-10

PRELIMINARY COST ESTIMATE - ALTERNATIVE 8
LANDFILL GAS REMOVAL WITH LOW PERMEABILITY CAPPING AND INSTITUTIONAL CONTROLS

	Quantity	Units	Unit Price	Cost	Unit Cost Reference
CAPITAL COSTS					
Mobilization, Bonding, and Insurance	1	L.S.	30000	30000	Estimate
Clark Tails Consolidation, Site Prep.	13000	cy	5	65000	Estimate
Clark Tailings Infil. Barrier Layer	52	Acres	9000	468000	Bid Tabulations
Clark Tailings Capillary Break Layer	52	Acres	10000	520000	Bid Tabulations
Clark Tailings Cover Soil	52	Acres	7500	390000	Bid Tabulations
Construct Pre-1991 Landfill Cap	3	Acres	7500	22500	Bid Tabulations
Construct Post-1991 Landfill Cap	4	Acres	11700	46800	Bid Tabulations
Install Passive Gas Venting	20	Acres	3100	62000	MDEQ, 1996 ✓
Organic Amendment	122	Acres	500	61000	Schaefer
Fertilize, Seed, and Mulch	122	Acres	1500	183000	Schaefer
Lined Run-on Control Pond	1	L.S.	90000	90000	Estimate
Surface Water Diversions	5500	L.F.	8	44000	MDEQ Bid Tabulations
Institute Land Use Restrictions	1	L.S.	5000	5000	Estimate
Institute Controlled Groundwater Use Zone	1	L.S.	50000	50000	Estimate
Subtotal				2037300	
Engineering / Construction Oversight (15%)				305595	
Subtotal Capital Costs				2342895	
Contingency (10%)				234290	

TABLE 6-10 Continued

TOTAL CAPITAL COSTS

\$2,577,185

**POST CLOSURE MONITORING
AND MAINTENANCE COSTS**

Inspections	2 /Year	500	1000	Estimate
Groundwater Monitoring - Sampling and Analysis	12 Samples	1500	18000	Experience
Maintenance	1 L.S.	10000	10000	Estimate
Subtotal			29000	
Contingency (10%)			2900	

ANNUAL 30 YEAR O&M COST

\$31,900

TOTAL CAPITAL COSTS

2577185

**PRESENT WORTH, POST-CLOSURE
MAINTENANCE AND MONITORING (5%)**

490381

TOTAL PRESENT WORTH COST

\$3,067,566

TABLE 4-10 Continued

TOTAL CAPITAL COSTS		22,777,182	
1. Land 2. Buildings 3. Equipment 4. Furniture 5. Other			
Land	1000	1000	1000
Buildings	1500	1500	1500
Equipment	1000	1000	1000
Furniture	2000	2000	2000
Other	500	500	500
ANNUAL 10-YEAR OWN COST		231,870	
1. Land 2. Buildings 3. Equipment 4. Furniture 5. Other			
Land	1000	1000	1000
Buildings	1500	1500	1500
Equipment	1000	1000	1000
Furniture	2000	2000	2000
Other	500	500	500
TOTAL CAPITAL COSTS		22,777,182	
1. Land 2. Buildings 3. Equipment 4. Furniture 5. Other			
Land	1000	1000	1000
Buildings	1500	1500	1500
Equipment	1000	1000	1000
Furniture	2000	2000	2000
Other	500	500	500
ANNUAL 10-YEAR OWN COST		231,870	
1. Land 2. Buildings 3. Equipment 4. Furniture 5. Other			
Land	1000	1000	1000
Buildings	1500	1500	1500
Equipment	1000	1000	1000
Furniture	2000	2000	2000
Other	500	500	500
TOTAL PRESENT WORTH COST		22,547,506	



City and County of Butte-Silver Bow

155 W. Granite, Courthouse
Butte, MT 59701

FAX

To: Mark Smith

From: Danette L. Glannon

Date: 4-16-97

Number of Pages: 2

Phone: (406)723-8262 ext. 266

Fax: (406)782-6637

FAX 444-1374

Remarks:

City & County of Butte-Silver Bow - Landfill
RE: Review of Local Gov't Financial Test.

Dear Mark:

I have reviewed the figures provided in the Financial Test under RCRA
Subtitle D. The figures were in accordance with the independent certified
Financial Statements of the City and County of Butte-Silver Bow for fiscal years
ending June 30, 1996 and June 30, 1995. I also reviewed all computation and did not
find any discrepancies.

If you have any questions please feel free to call.

Sincerely,

Danette L. Glannon

Asst. Finance & Budget Officer



Butte-Silver Bow
Finance & Budget Administration
155 W Granite Street
Butte, MT 59701



Wednesday, April 16, 1997

Mark Smith
Montana Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901

RE: Review of Local Government Financial Test to satisfy its financial test
under RCRA Subtitle D.

Dear Mark:

I have reviewed the figures provided in the Financial Test under RCRA Subtitle D. The figures used were in accordance with the independent audited Financial Statements of the City and County of Butte-Silver Bow for fiscal years ending June 30, 1996 and June 30, 1995. I also reviewed all computation and did not find any discrepancies.

If you have any questions please feel free to call.

Sincerely,

Danette L. Gleason
Assist. Finance & Budget Director

4-3
Silver Bow Co
Butte Landfill # 330
Finan Assur

DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING & COMPLIANCE DIVISION
SOLID WASTE PROGRAM



MARC RACICOT, GOVERNOR

Metcalf Building

STATE OF MONTANA

Phone: (406)444-4323

Fax: (406)444-1374

PO Box 200901

Helena, MT 59620-0901

March 26, 1997

Mr. Gary Keeler
Landfill Manager
Butte-Silver Bow Dept. of Public Works
Courthouse
Butte, MT 59701

RE: Local Government Test for Butte-Silver Bow.

Dear Gary:

This letter is to memorialize our telephone conversation of March 25, 1997. We discussed Butte-Silver Bow's local government test materials, and the need to address the 43% relative size threshold. This threshold is intended to demonstrate that all environmental obligations the County assures using the financial test do not exceed 43% of its annual income. You agreed to discuss this with Jack Richardson and call me with any questions. We also talked about a supplemental submittal addressing this issue.

After we talked, I finished reviewing Butte-Silver Bow's local government financial test materials, and found a few more areas that need attention. Typically, we need to see the following documents in reviewing a financial test (many of which you have already provided):

1. Closure plan (included).
2. Cost estimates for closure/post-closure care (included).
3. Bond ratings (not applicable).
4. Computation of the 43% Relative Size Threshold.
5. Copy of an independently audited year-end financial statement for the latest fiscal year (included).
6. Auditor's unqualified opinion (included).
7. Public notice component: Pursuant to GASB 18, certain items need to be disclosed in the financial statements or accompanying notes. I have thus far been unable to locate these disclosures in the Butte-Silver Bow CAFR. Please advise as to their location, if they are included.

8. Calculations supporting the liquidity ratio and debt service ratio tests. These items were included, but still need to be reviewed by our auditor. It is also helpful if these assertions can be included in the CFO letter (please see attached sample).

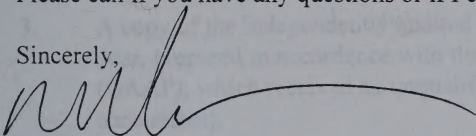
9. Financial Certifications: These certifications can usually be handled in the quasi-legal form of the CFO letter, which addresses the three criteria set forth in EPA's guidance document "Financial Assurance Under RCRA Subtitle D" (disseminated at the November, 1996, tele-conference which you attended). I have attached a sample for your review.

10. Calculations for the two most recent fiscal years which demonstrate that the County has not operated at a deficit equal to five percent or more of total annual revenue in each of the past two fiscal years.

11. Accountant's special report: There needs to be a special report from an accountant which confirms that the data reported in the CFO letter agrees with the data in the audited financial statements. There is no requirement that this accountant be "independent," and in the past the department has accepted special reports from accountants employed by the entity seeking to use the financial test.

Please call if you have any questions or if I can be of further assistance.

Sincerely,



M. Steger Smith
Department Counsel

MSS:cu
attachments

[entity] COUNTY
CHIEF FINANCIAL OFFICER LETTER
[DATE]

[entity] County has elected to use the Local Government Financial Test to satisfy its financial responsibility under RCRA Subtitle D. Attached, and incorporated by this reference, are the following documents which demonstrate [entity] County's compliance with the requirements of the Local Government Financial Test:

1. A letter from [entity] County's consultant/engineer which summarizes the [entity] County landfill closure plan and related cost estimates. The cost estimates are also included in the audited financial statements of [entity] County.
2. A computation of the 43% relative size threshold, which accounts for all environmental liabilities assured using a financial test, including landfill closure, post-closure care and corrective action (if applicable).
3. A copy of the independently audited year-end financial statements for the latest fiscal year, prepared in accordance with the Generally Accepted Accounting Procedures (GAAP), which received an unqualified opinion from [an independent certified public accountant].
 - a. This document demonstrates compliance with the Liquidity Ratio Test by showing Cash and Securities of \$[] (found at [cite]), versus Total Expenditures of \$[] (found at [cite]), for a ratio of []%, which is greater than or equal to 0.05.
 - b. This document demonstrates compliance with the Debt Service Ratio Test by showing Annual Debt Service of \$[] (found at [cite]), versus Total Expenditures of \$[] (found at [cite]), for a ratio of []%, which is less than or equal to 0.20.
4. A copy of [entity] County's Comprehensive Annual Financial Report (CAFR) or budget (if applicable) which discloses, with a view to public notice, all closure, post-closure and corrective action costs for which the local government is using the financial test (See, [location of GASB 18 disclosures]).¹
5. Calculations for the years ending June 30, 1996 and June 30, 1995 which demonstrate that [entity] County has not operated at a deficit of 5% or more of total annual revenue for each of the past two fiscal years.

¹ For the first year the financial test is used to assure costs at a particular facility, the reference may instead be placed in the operating record until issuance of the next available CAFR, if timing does not permit the reference to be incorporated into the most recently issued CAFR or budget.

6. A special report from a certified public accountant confirming that the data reported in the Chief Financial Officer's letter agrees with the data in the audited financial statements.

FINANCIAL CERTIFICATIONS

Furthermore, [entity] County hereby certifies that it:

1. Is not currently in default on any outstanding general obligation bonds;
2. Does not have any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard and Poor's;
3. Has not operated at a deficit equal to five percent or more of total annual revenue in each of the past two fiscal years.

Certified by:

[Chief Financial Officer]

[Title]

Date

Subscribed and sworn to before me this _____ day of _____, 1997.

NOTARY PUBLIC for the State of Montana

Residing at _____

My commission expires: _____

(SEAL)

DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING & COMPLIANCE DIVISION
SOLID WASTE PROGRAM



MARC RACICOT, GOVERNOR

Metcalf Building

STATE OF MONTANA

Phone: (406)444-4323

Fax: (406)444-1374

PO Box 200901

Helena, MT 59620-0901

February 27, 1997

RE: A general letter to all Class II Landfills in Montana who will be subject to RCRA financial assurance requirements.

Dear Sirs:

As the April 9, 1997 effective date for financial assurance requirements draws near, we at DEQ are receiving an increasing number of questions regarding the mechanics of the financial assurance provisions of RCRA Subtitle D and Montana's administrative rule 17.50.540. In an effort to answer some of these questions, and remind all of you of the deadline, we are sending this letter.

"What does my 'cost estimate' need to reflect?" There are two permissible interpretations of the regulations promulgated by EPA: First, the cost estimate must be equal to the largest "unit" (or "cell") which will ever be open during the active life of the facility, whether or not it is currently receiving waste. Second, the cost estimate must equal the total area of all "cells" that will ever be open over the active life of the facility. EPA has indicated that both of these interpretations are valid and acceptable under Federal Subtitle D regulations. Since Montana's financial assurance regimen reflects the federal scheme almost verbatim, either of the above interpretations is permissible for Montana's Class II landfills. Which of these you select, is left to your discretion.¹

"How long is my trust fund's pay-in period?" Again, the regulations allow several interpretations. The appropriate interpretation will depend, in part, upon which "cost-estimate" construction you choose. If you select the first cost estimate method, above, your pay-in period will be equal to either:

- a) The lifespan of the largest unit at the facility, whether or not it is currently receiving waste;
- or
- b) *The lifespan of the entire facility.*

If you select the second cost-estimate methodology, your pay-in period will be equal to either:

- a) The lifespan of the entire facility, where there is no phased closure; or
- b) Half the lifespan of the entire facility, assuming phased closure.

Here again, EPA has indicated that the above interpretations are valid and permissible. Please note, however, that the italicized interpretation, above, has only received verbal authorization from EPA. DEQ is now in the process of amending ARM 17.50.540 to expressly include this interpretation. EPA will therefore need to affirmatively accept or reject this interpretation prior to the effective date of April 9, 1997. Because confirmation or rejection will arrive in the eleventh hour, we recommend having a backup plan with your trustee.

¹ In almost every conceivable scenario, the "largest unit" cost estimate will be the cheapest way of structuring financial assurance. Accordingly, DEQ's proposed amendments to ARM 17.50.540 (referred to in the next paragraph) equate cost estimates to the "Class II landfill unit that the department determines to be the largest unit in the facility". If any facility wishes to base their cost estimate upon a larger area, such interpretation would be acceptable to the department.

Page 2
February 27, 1997

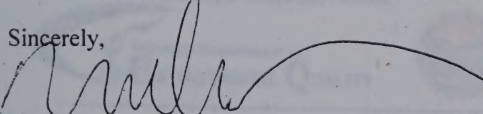
"What happens if I do not have financial assurance in place by April 9, 1997?" Failure to have financial assurance in place by the effective date will constitute a violation under the Montana Code Annotated and the Administrative Rules of Montana. Such a violation will constitute grounds for enforcement action, possibly including license revocation, injunction, or civil penalties. There are two instances where an extension will be granted beyond the April 9, 1997 deadline: (1) Those facilities which, for good cause shown, are unable to comply by the April 9, 1997 deadline, may apply to the Department for up to one year's extension of the effective date of financial assurance requirements. Such an extension will only be granted upon a showing of good cause, and only if no danger to the environment results from the extension. (2) Those facilities which qualify for, and have been granted, the "small community exemption" contained in ARM 17.50.506(16) have until October 9, 1997 to comply with financial assurance regulations.

"If I am considering using the local government test, should I wait until the Montana rule is published to begin work on my financial assurance materials?" No. The Montana ARMs covering the Local Government Test are required by State statute to be no more stringent than Federal regulations. The EPA requires that Montana DEQ enact regulations that are no less strict than the Federal regulations. Therefore, the rule promulgated by Montana will be largely identical to the Federal rule. It is to your advantage to begin amassing financial assurance materials as soon as possible. Waiting for the State rule regarding the local government test to be drafted will not be a viable basis for the hardship exemption discussed above.

The following individuals remain available at DEQ to answer your questions and help finalize financial assurance before the April 9, 1997 deadline. Please direct your inquiries accordingly:

M. Steger Smith:	Program Attorney. 444-1425.
Ken Kapsi:	Program Engineer. 444-6871.
Rick Thompson:	Licensing Lead. 444-5294.
Pat Crowley:	Acting Program Manager. 444-5294.
Jon Dilliard:	Bureau Chief. 444-2409.

Sincerely,



M. Steger Smith
Department Counsel

MSS:cu

cc: Jon Dilliard
F. Pat Crowley
Rick Thompson
Ken Kapsi
John North

Stepp, Tim

Tim Stepp 2/6/08

From: Keeler, Gary [gkeeler@bsb.mt.gov]
Sent: Wednesday, February 06, 2008 2:29 PM
To: Stepp, Tim
Subject: RE: Financial Assurance License 20 Butte-Silver Bow

Thanks Tim for your quick response. Gary

From: Stepp, Tim [mailto:Tstepp@mt.gov]
Sent: Wednesday, February 06, 2008 2:23 PM
To: Keeler, Gary
Subject: RE: Financial Assurance License 20 Butte-Silver Bow

Gary,

Some facilities do not provide closure or post-closure FA, but have been required to monitor groundwater, either in the past or currently as in your case at the old Butte landfill (Lic #20).

Because of the ongoing potential for groundwater corrective action at these sites, the FA letter is now mailed to those facilities in the event that a corrective action is ever needed to clean up a release of contaminants that exceeds the MCLs.

The letter is a tracking formality triggered by the FA rules for monitoring activity. Therefore, no action is required from you until such a release is detected at the site, if ever. You may simply file it for reference until needed.

Please call if you have other questions or comments.

Thanks...tim

TIM STEPP

Environmental Engineer - Solid Waste Program
 Waste & Underground Tank Management Bureau
 Permitting & Compliance Division



Lee Metcalf Building
 1520 East Sixth Ave
 P.O. Box 200901
 Helena, MT 59620-0901

Phone 406-444-4725
 Fax 406-444-1374
 email: tstepp@mt.gov

From: Keeler, Gary [mailto:gkeeler@bsb.mt.gov]
Sent: Tuesday, February 05, 2008 3:15 PM
To: Stepp, Tim
Cc: Van Daveer, John
Subject: Financial Assurance License 20 Butte-Silver Bow

Tim I am not sure why the financial assurance letter on License 20 as this Landfill was closed in conjunction with the MT DEQ in 1994. Please advise. Thanks Gary

Gary Keeler

Butte-Silver Bow
Transit Director
126 West Granite Street
Butte, Montana 59701
Phone: 406-497-6521
Fax: 406-497-6524

Please note that my email has changed to: gkeeler@bsb.mt.gov

DO NOT copy or disseminate this communication unless you are the intended addressee. This email communication may contain confidential and/or privileged information intended only for the addressee. If you have received this communication in error, please notify the sender immediately and inform the sender of the error.

DO NOT copy or disseminate this communication unless you are the intended addressee. This email communication may contain confidential and/or privileged information intended only for the addressee. If you have received this communication in error, please notify the sender immediately and inform the sender of the error.



Montana Department of
ENVIRONMENTAL QUALITY

COPY

MEMO

TO: CLOSURE FILE - Old Butte-Silver Bow (BSB) landfill

FROM: Tim Stepp *Tim Stepp 3/1/06*

DATE: March 1, 2006

SUBJECT: **FINAL COVER CQA
CMA INTERIM MEASURES & SUPERFUND
FA LIMITATIONS**

BSB has provided the CQA-CQC for completion on June 25, 1997, of the final cover construction for the subject Class II landfill. By far, the largest portion of the landfill was closed under pre-Subtitle D requirements, thus post-closure obligations for most of the site simply rely on inspecting and maintaining the integrity of the final cover. Cessation of operations and the filing of a Closure Plan for the remaining 4-acre area pre-dated the April 9, 1994, deadline extension for methane monitoring (<100 tpd) under the O&M rule.

The four-acre area that received waste after the trigger date (10/9/91) for Subtitle D regulation was covered according to the approved Closure Plan. The final cover was also approved for installation based on its performance as an ET water-balance cap apparently providing an interim measure under the site-specific groundwater Corrective Measures Assessment (CMA).

The Solid Waste Program oversight of the landfill ground water plume may apparently provide proxy authority for Superfund cleanup of the Clark Tailings associated with the facility subgrade. Consequently, ground water monitoring must continue, but the need for financial assurance (FA) is limited to the potential for selection of a corrective action remedy under ARM 17.50.710.

Given the regulatory complexity of the circumstance, and implications of the unresolved interim versus selected remedy for ground water corrective actions at the site, the report is noted as "received" herein, however, the Department must confer with EPA before providing final approval of the submittal.

COPY

MEMO

Montana Department of
ENVIRONMENTAL QUALITY



TO: CLOSURE FILE - Old Bull-Silver Bow (B2B) landfill
FROM: Tim Stepp
DATE: March 1, 2006

SUBJECT: FINAL COVER COA
CMA INTERIM MEASURES & SUPERFUND
TA LIMITATIONS

ES&B has provided the COA-COC for completion on June 22, 1997 of the final cover construction for the subject Class II landfill. By the the largest portion of the landfill was closed under pre-Solidification D requirements, then post-closure obligations for most of the site simply rely on inspecting and maintaining the integrity of the final cover. Cessation of operations and the filing of a Closure Plan for the remaining 4-acre area pre-dated the April 9, 1994, deadline extension for methane monitoring (<100 ppb) under the O&M rule.

The four-acre area that received waste after the trigger date (10/6/97) for Solidification D regulation was covered according to the approved Closure Plan. The final cover was also approved for installation based on its performance as an ET water-balance cap apparently providing an interim measure under the site-specific groundwater Corrective Measures Assessment (CMA).

The Solid Waste Program oversight of the landfill ground water plans may apparently provide proxy authority for Superfund cleanup of the Class II landfills associated with the facility subsurface. Consequently, ground water monitoring must continue, but the need for financial assurance (FA) is limited to the potential for selection of a corrective action remedy under RCRA 17.20.710.

Given the regulatory complexity of the circumstance, and implications of the unresolved interim versus selected remedy for ground water corrective action at the site, the report is noted as "received" herein, however, the Department must confer with EPA before providing final approval of the substantial.

20
old Butte



Montana Department of
ENVIRONMENTAL QUALITY

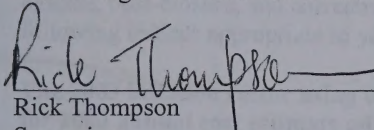
MEMO

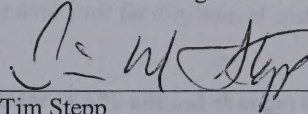
TO: Ed Thamke - Waste & Underground Tank Management Bureau
FROM: Jan Sensibaugh - Director
DATE: May 10, 2004

SUBJECT: **LANDFILL FINANCIAL ASSURANCE RELEASES**

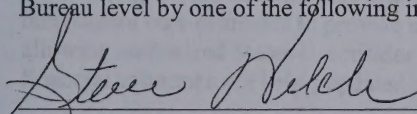
The release of financial assurance (FA) for landfills is regularly required when the FA mechanism is either updated and replaced or when the activity that is guaranteed by the FA mechanism is completed. Two Department FA release approvals are required: one for the return of the original FA mechanism to the issuer and another for the release of a solid waste licensee from its obligation to provide FA after the Department determines that the licensee has satisfied particular closure, post-closure, or corrective action requirements for the site.

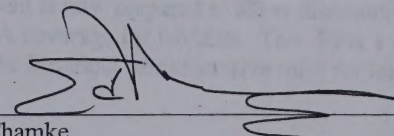
The required Department approval for landfill FA mechanism replacement or return to the issuer must be signed at the Solid Waste Program level by one of the following individuals:


Rick Thompson
Supervisor
Waste Management Section

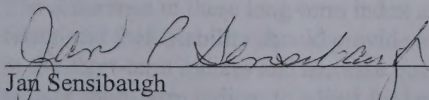

Tim Stepp
Engineer
Solid Waste Program

The required Department approval for the licensee Request for Release from partial or full landfill FA liability upon final performance of the guaranteed activity must be signed at the Bureau level by one of the following individuals:

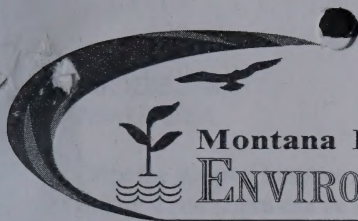

Steve Welch
Administrator
Permitting & Compliance Division


Ed Thamke
Bureau Chief
Waste & Underground Tank Management

Any request by the Department for cash pay-out to a standby trust from any landfill FA mechanism due to default or notice of cancellation must be approved by the Department Director:


Jan Sensibaugh

Date: May 12, 2004



Montana Department of
ENVIRONMENTAL QUALITY

Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.state.mt.us

April 9, 2004

MR GARY KEELER
BUTTE SILVER BOW LANDFILL
126 W GRANITE
BUTTE, MT 59701

**RE: UPDATED FINANCIAL ASSURANCE (FA) REQUIREMENTS
AND GDP IMPLICIT PRICE DEFLATORS
BUTTE SILVER BOW LANDFILL (Lic. #20)**

Dear MR KEELER:

Please note that the Department has updated several financial assurance requirements that will affect most landfill facilities that provide FA. These updates are divided into the sections that follow.

GDP Implicit Price Deflators: If there have been no changes on site that affect financial assurance for closure, post-closure, and corrective action, please update your facility annual cost estimates using the following indices appropriate to your submittal:

The 2003 inflation factor using the final 2002 deflator (1.5% annual change) is 1.015 (multiplier) for 2003 annual cost estimate adjustments.

The 2004 inflation factor using the final 2003 deflator (1.7% annual change) is 1.017 (multiplier) for 2004 annual cost estimate adjustments.

Discounting: After considerable discussion, the Department is now prepared to allow discounting of FA mechanism cost-estimates to provide net-present-value FA coverage for landfills. This EPA's directive allowing authorized States to consider such proposals. The Montana administrative rules for landfill financial assurance are being updated accordingly.

If discounting is chosen, long-term indices for inflation and return should be adjusted to representative values based on long-term averages. We suggest using the full historic data from either the GDP Implicit Price Deflator (U.S. Bureau of Economic Analysis) or the Consumer Price Index (U.S. Bureau of Labor Statistics) to develop a representative long-term average for inflation. For the long-term average on return, we suggest development from historic data based on the Ibbotson-Sinquefeld short-term return on U.S. Treasury bonds (short-term payouts to implement post-closure care affect long-term returns).

The difference in these long-term index averages should currently yield approximately 0.6-0.7% net return and their stability should provide a robust estimate that smooths out periodically rapid variations in the short-term indices and increase business and regulatory reliability. However, the Department may require short-term indices to adjust for large payouts during any periods when inflation exceeds returns or in other appropriate circumstances to ensure that adequate net FA coverage is available when needed.

Environmental Quality
Department of

April 2, 1981

MR. GARY KELLER
BUTTE SHELTER BOWLAND
110 W. GRANT
BUTTE, MT. 59701

RE: CHARTER FINANCIAL ASSOCIATION IS A REQUIREMENT
AUGUST 1981 CITY OF BUTTE
BUTTE, MONTANA 59701

Dear Mr. Keller:

Please advise the Department has received several financial statements from you which will affect
your monthly activities and provide for. These activities are listed into the sections that follow.

1. The first section is the Budget. It lists items which are changes on the first after financial statements for
the year from 1980, and corrective action plans for the year ending 1981. The Department will be
able to make adjustments to your activities.

The first section lists using the first 1981 budget. (The annual change is 1.01% (unpublished)
for 1981 annual cost estimate adjustment.)

The second section lists using the first 1981 budget. (The annual change is 1.01% (unpublished)
for 1981 annual cost estimate adjustment.)

The third section lists using the first 1981 budget. (The annual change is 1.01% (unpublished)
for 1981 annual cost estimate adjustment.)

The fourth section lists using the first 1981 budget. (The annual change is 1.01% (unpublished)
for 1981 annual cost estimate adjustment.)

The fifth section lists using the first 1981 budget. (The annual change is 1.01% (unpublished)
for 1981 annual cost estimate adjustment.)

MR KEELER

April 9, 2004

Once the updated long-term net-present-value FA mechanism is approved, annual adjustments for inflation and return can be implemented accordingly over a five year period as long as there are no other changes on site that affect the FA costs. Like master plans, FA cost estimates and long-term index averages must be updated every five years. Any cost-estimate updates must be accompanied by an engineer's inspection report on all systems, including schedules that summarize remaining unit capacities, open-area acreages, and anticipated construction.

Master and Project Plans: Even though Master Plans play an important role in site development, license expansions, and preparation of Environmental Assessments (EAs), any approved plans become stale after five years of non-activity. Due to changes in administrative rules, technology, site conditions, and associated economics, the construction of each landfill unit or cell at a multi-unit facility requires the submittal, review, and approval of any changes in static and seismic stability, hydrology and leachate models, and of an updated set of engineering plans and specifications, and QA/QC documents for each project. An engineer's report on the current state of all licensed systems at the landfill site must accompany every five-year Master Plan update. Please review the facility Master Plan for accuracy and submit a full update if they are older than five years.

Cost Estimates: The Department is now requiring itemized cost estimates for third-party bid administration in the event of post-closure default on performance of one major repair of each major system: e.g. final cover, leachate, landfill gas, groundwater and methane monitoring systems, and each major corrective-action system. Furthermore, we may require increases in contingencies for specific line items in closure, post-closure, or corrective action costs when appropriate. Please submit the appropriate adjustments to the 2004 cost estimates.

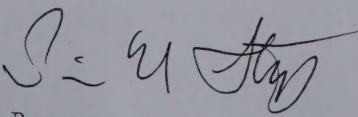
FA Mechanism and Language: The Department is also requiring a change in the language of bond, insurance, or letter-of-credit mechanisms to provide a provision that requires immediate forfeiture of the full FA amount into a standby trust fund upon any notice of cancellation. Please make the appropriate language addition to your 2004 FA mechanisms and, if appropriate, also submit a standby trust-fund mechanism for approval. You may contact me for example language to update each required mechanism.

A single standby trust mechanism can act to service the closure, post-closure, and corrective-action FA mechanisms and provide the Department with a fund management agreement in the event that funds must pour from the mechanism due to task default or a bond cancellation notice. Please note that individual FA mechanisms are required for closure, post-closure, and corrective action. Thus the trust fund must also provide separate accounting for closure, post-closure, and corrective action. Please update the facility FA mechanisms and trust funds accordingly.

We hope these policy adjustments provide robust FA for landfills. If you have any comments or suggestions, please contact me at the Permitting and Compliance Division, Waste and Underground Tank Management Bureau, Waste Management Section: voice 406.444.4725, email tstepp@state.mt.us or FAX 406.444.1374.

Sincerely,

Tim Stepp
Solid Waste Program



4-3
BUTTE-SILVER BOW
DEPARTMENT OF PUBLIC WORKS

Courthouse
Butte, Montana 59701
Phone: (406) 723-8262



County	Facility & #	Butte	20
Closure	Finan Assur	Landfarm	
GW Corr Meas	GW Monitoring	Liner	
GW Reports	GW Reports	Methane	
Inspections	Inspections	O & M	
		Run - On	

COPY

April 18, 1997

RECEIVED

APR 21 1997

Mr. Patrick Crowley
Acting Program Manager
Department of Environmental Quality
P.O. Box 200901
Helena, Montana 59620-0901

MONTANA
DEPT. OF ENVIRONMENTAL QUALITY
COMMUNITY SERVICES BUREAU

Dear Pat:

You are advised that the Old Butte-Silver Bow landfill license No. 20 stopped accepting waste prior to April 9, 1997.

Final cover will be placed this spring in compliance with the Corrective Measures Assessment and the final 7 acres will be covered.

I have calculated the environmental obligation for closure of the old landfill from the attached Table 6-10 from the Butte-Silver Bow Corrective Measures Assessment which details the anticipated annual post closure monitoring and maintenance costs amount to \$31,900. Also, Butte-Silver Bow is responsible for installing a passive gas venting and the engineering estimate is in the amount of \$62,000 is highlighted on the attachment. As you know, the landfill cover is almost complete and the majority of the final cover is in place awaiting seeding this fall.

I will await your response to the Butte-Silver Bow Financial Assurance Mechanism that was submitted.

Thank you for your assistance.

Sincerely,

Gary Keeler
Landfill Manager

COPY

OUTLET SILVER BOW
DEPARTMENT OF PUBLIC WORKS
Cincinnati
Phone: (603) 755-8333
Fax: (603) 755-8333

RECEIVED
APR 21 1997

DEPT. OF ENVIRONMENTAL QUALITY
COMMUNITY SERVICES BUREAU
MONTANA

Mr. Patrick Crowley
Acting Program Manager
Department of Environmental Quality
P.O. Box 200201
Helena, Montana 59620-0201

Dear Sir:

You are advised that the Old Butte-Silver Bow landfill license No. 20 stopped accepting waste prior to April 2, 1997.

Final cover will be placed this spring in compliance with the Montana Air Quality Act. A permit and the final 7 cover will be covered.

I have calculated the environmental mitigation for closure of the old landfill from the attached Table 8-10 from the Butte-Silver Bow Conversion Mitigation Agreement which details the anticipated annual post closure monitoring and maintenance costs amount to \$21,900. Also, Butte-Silver Bow is responsible for installing a passive gas venting and the engineering estimate is in the amount of \$61,000 as highlighted on the attachment. The total cost for the landfill cover is almost complete and the majority of the final cover is in place awaiting seeding this fall.

I will await your response to the Butte-Silver Bow Financial Assurance Mitigation that was submitted.

Thank you for your assistance.

Sincerely,

Gary Kasper
Landfill Manager

TABLE 6-10

PRELIMINARY COST ESTIMATE - ALTERNATIVE 8
LANDFILL GAS REMOVAL WITH LOW PERMEABILITY CAPPING AND INSTITUTIONAL CONTROLS

	Quantity	Units	Unit Price	Cost	Unit Cost Reference
CAPITAL COSTS					
Mobilization, Bonding, and Insurance	1	L.S.	30000	30000	Estimate
Clark Tails Consolidation, Site Prep.	13000	cy	5	65000	Estimate
Clark Tailings Infil. Barrier Layer	52	Acres	9000	468000	Bid Tabulations
Clark Tailings Capillary Break Layer	52	Acres	10000	520000	Bid Tabulations
Clark Tailings Cover Soil	52	Acres	7500	390000	Bid Tabulations
Construct Pre-1991 Landfill Cap	3	Acres	7500	22500	Bid Tabulations
Construct Post-1991 Landfill Cap	4	Acres	11700	46800	Bid Tabulations
Install Passive Gas Venting	20	Acres	3100	62000	MDEQ, 1996 ✓
Organic Amendment	122	Acres	500	61000	Schaefer
Fertilize, Seed, and Mulch	122	Acres	1500	183000	Schaefer
Lined Run-on Control Pond	1	L.S.	90000	90000	Estimate
Surface Water Diversions	5500	L.F.	8	44000	MDEQ Bid Tabulations
Institute Land Use Restrictions	1	L.S.	5000	5000	Estimate
Institute Controlled Groundwater Use Zone	1	L.S.	50000	50000	Estimate
Subtotal				2037300	
Engineering / Construction Oversight (15%)				305595	
Subtotal Capital Costs				2342895	
Contingency (10%)				234290	

TABLE 6-10 Continued

TOTAL CAPITAL COSTS**\$2,577,185****POST CLOSURE MONITORING
AND MAINTENANCE COSTS**

Inspections	2 /Year	500	1000	Estimate
Groundwater Monitoring - Sampling and Analysis	12 Samples	1500	18000	Experience
Maintenance	1 L.S.	10000	10000	Estimate
Subtotal			29000	
Contingency (10%)			2900	

ANNUAL 30 YEAR O&M COST**\$31,900****TOTAL CAPITAL COSTS****2577185****PRESENT WORTH, POST-CLOSURE
MAINTENANCE AND MONITORING (5%)****490381****TOTAL PRESENT WORTH COST****\$3,067,566**